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COLLECTION
OF
TREATISES
Relating to the
City and Waters of BATH.

ST. MARTIN'S
NEWSPAPER
FORD
BATH

CONTAINING,

- I. A DISCOURSE of the BATH, and the Hot Waters there. Also some Enquiries into the Nature of the Water of *St. Vincent's Rock* near *Bristol*; and that of *Castle-Cary*.
- II. *A Century of Observations*; containing farther Discoveries of the Nature of the Hot-Waters at BATH. With the Contents, Property and Distinction of each Bath in Particular.
- III. The Lives and Characters of the Physicians of BATH; from the Year 1598, to the Year 1676.
- IV. An APOLOGY for the BATH; being an Answer to a late Enquiry into the Right Use and Abuses of the Baths of England, &c. With some Reflexions on Fresh Cold Bathing, Bathing in Sea Water, and Dipping in Baptism.
- V. The Register of BATH; or, Two Hundred Observations. Containing an Account of Cures performed, and Benefits received, by the Use of the Famous Hot Waters of BATH: As they, for the most Part, came under the Author's Twenty-seven Years Experience and Observation.

All written by the Learned THOMAS GUIDOTT, M. B.
late Physician at the BATH.

To which is added, *Thermæ Redivivæ*; or, The City of BATH described, &c. By HENRY CHAPMAN, Gent.

L O N D O N :

Printed for J. LEAKE, Bookseller at the BATH.
M. DCC. XXV.

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A
DISCOURSE
OF
BATH
And the
Hot Waters There.



ALSO,
Some ENQUIRIES into the Nature of the
Water of St. Vincent's Rock, near Bristol, and
that of Castle-Cary.

Virtute vincam Invidiam.

The SECOND EDITION.



LONDON:

Printed in the YEAR M.DCC.XXV.

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THERMARUM BATHONIENSIVM

NATURA ET VIRIBUS,

SUBMISSE OFFERT

T. G.

INSTITUTIONE THEOLOGICA ET PHILOSOPHICA

COLLEGIUM THEOLOGICUM

IN URBE

EXCELSISSIMO

IN HONOREM S. MARCI

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IN URBE

COLLEGIUM THEOLOGICUM

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ETC



To the Right Worshipful,

And my much Honoured FRIEND,

Sir *Edward Greaves*, Bart.

Fellow of the College of *Physicians*
in LONDON, and *Physician* in Ordinary to
His MAJESTY.

Honoured SIR,



THE kind Reception You
were pleased to afford a
small Paper of mine,
that had lately the Ho-
nour to have your Name prefix'd,
hath given this Encouragement to
present to Your View, a further
Collection of Experiments touch-
ing the same Subject, relating to
the Waters of *Bath*, a Place You
were pleased once to grace with
Your Practice, and still with Your
[b 2] Favours,

The Epistle Dedicatory.

Favours, for which a more than ordinary Respect is, in Gratitude, Your Due.

Besides, considering You have so far favoured my late Enquiries, as to assist me by Your Presence, and be an Eye-witness of some of the Experiments, and are a sufficient Judge of them all, I could not fix on any fitter than Yourself, and the Learned Body You have Relation to, to make this Address unto, or give the Trouble of this present Dedication.

It hath caused me sometimes not a little to admire, That the Metropolitan Waters of all *England*, (as I may term them) to say no more, should lie 2000 Years, and it may be much longer, in so narrow a Diocess; for the Discovery I have made of many Things relating to them, (of which in Part here is some Account) that
were

The Epistle Dedicatory.

were never taken Notice of by former Persons, and those few Writers that have treated of them, will justify the Expression.

The Principles formerly were accounted *Sulphur, Copper, Iron,* and a little *Marcasite* ; of late, *Bitumen, Nitre,* and some *Sulphur*, which last I endeavour to confirm, with the Addition of many more, which will partly constitute, and partly evidence the Nature of these Waters : Besides the beneficial Discovery of the rational Use of the Bath-waters in Potion, which hitherto having been but as a good Back-Sword, are now become a Single Rapier, ready to save, and not destroy, unless ill-managed by a distemper'd Hand.

I confess I did not think to have appeared in this Dress, having designed, and in part compleated, as You know very well, something
else,

The Epistle Dedicatory.

else, that would have better suited with my Condition, the Dignity of the Subject, and Reputation of these Waters. But finding some hasty Chirurgeon that hath already launced what I intended should have had a longer Time to digest, and expecting, as none but in Reason must, the Pretences of many others, I found myself obliged to appear, though in a careless Habit, and, in a manner, undress'd, rather than too much to exercise the Patience, if not justly incur the Censure, of those Friends, whose Kindness shall induce them to give me a Visit.

And although my Nature inclines me rather to a Diffidence, than Presumption on any thing that is my own, yet I must be so far confident as to believe, that the Existence of *Nitre* in the Waters of *Bath*, so much question'd by some, and my particular Concern,

is

The Epistle Dedicatory.

is so fully establish'd by the following Experiments, made with my own Hands, as to keep those Words upright in my late Letter to Your self, wherein I assert it to be undeniable. And whoever shall take the Pains to satisfy himself in that Particular, as I have done, and shall let me know wherein he is dissatisfied, and can convince me to the contrary, whom I will assure he shall not find obstinate, he shall have the Honour, if that be any thing, of making me his Convert, (for I think my single Reputation a small Sacrifice on the Altar of Truth ; but if not, it will appear, which is no great Matter on either Hand, that some-Body hath been mistaken.

However, the Satisfaction is not little, nor the Omen bad, that I have already gained the Approbation of a Person so Judicious as Your self, who have formerly ta-
ken

The Epistle Dedicatory.

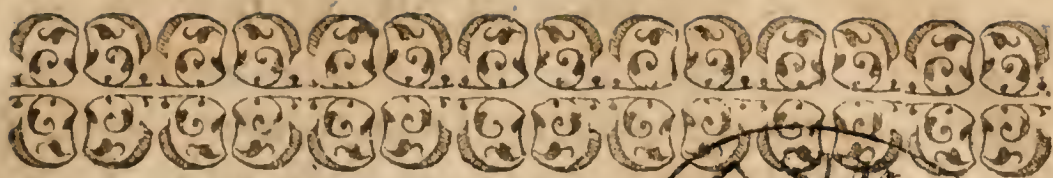
ken Pains on the same Account ;
and on which Side soever the Scales
shall turn, I have had this Oppor-
tunity of doing something to oblige
my Country, as well as acknow-
ledge myself,

S I R,

Your most Humble

and Faithful Servant,

THO. GUIDOTT.



A
P R E F A C E
T O T H E
R E A D E R.



HAT the Reader may be acquainted with the Occasion, Time, and Manner of my making these Enquiries (which are not hasty Conclusions, but the Product of more mature Consideration) I shall here premise something concerning that, and also discourse of, as more pertinent in this Place, some other Matters tending to the Enlargement of the Reputation and Usefulness of the Waters.

Taking therefore into Consideration the Performances of some before me, and the Attempts of others, in my Time, which were not satisfactory, and having the Advantages of a more retired Nature, and constant Residence on the Place, with those Conveniencies which some others have not had, I thought it worth my while to employ my leisure Hours in some Experiments on the Waters, which none had done before to any great Purpose, the Waters having hitherto been rather admir'd than understood, if so I might give my own Curiosity Satisfaction

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zatisfaction in that Affair. And indeed, no vain-glorious Humour of desiring to be popular, which I never affected, nor Itch to have my Name in Print, which hath been already sufficiently done by the Kindness of my Friends, and therefore needs not any Labour of my own again, was the Occasion of my entering on this Undertaking; but observing the Bath-water was drank by some, and probably like to advance, I could not satisfy my self in advising my Patients to it, unless I had first made a particular Search into what it did contain, it seeming as absurd to me to tell my Friends that depended on my Judgment for their Health and Preservation, they should drink the Bath-water, which I knew nothing of, as to advise them to the Use of such Spirits, Pills, or any other Medicine, I was ignorant of the Composition of, or had procured from others.

Had I found this done to my Hand, I could well have dispensed with the Confinement and Risque this Design hath occasion'd, and spent those Hours I have done in my Study, as chearfully elsewhere; but finding little Satisfaction in what had been before perform'd, I first made a Collection out of the best Mineral Authors, such as Fallopius, Agricola, Baccius, and others, what was the best way to obtain a Sediment out of any Water, and then how to know of what that Sediment did consist, making Application of this Theory, to the Waters of this Place.

Observing then the ways of gaining a Sediment to be chiefly Four, Evaporation, Distillation, Precipitation, and Insolation, the last, as too laborious, I thought fit to wave, and resolved on the other Three, Evaporating, Precipitating, and Distilling first small Quantities of all the Baths, which gave me Encouragement to proceed to greater.

Having

to the R E A D E R.

Having obtain'd a Sediment, which I call the Contents of the Water, the very Notion of which was but lately a Stranger here, I trusted not to my single Judgment, but made it known to the best Physicians of my Acquaintance, with whom I had Converse, particularly my ever-honoured Friend Sir Edward Greaves, whose Encouragement to this Design hath not been little, and also addressed my self in Writing to the very Ingenious and Eminent Doctor Willis (whose Loss all Ingenious Philosophers and Physicians must lament, his many Thoughts now dying with him) whose Assistance I desired by Letter dated 1 Sept. 1673, in these Words :

S I R,

THE Acquaintance I had the Happiness to have with you formerly in Oxon, and the Civilities you have been pleased to confer on me since, with the Readiness you have ever express'd of encouraging all ingenious Inquiries, have emboldened me to give you this Interruption. The Desire also I understand you have expressed to Mr. Robert Chapman an Apothecary of this City, of a better Account of the Contents of these Waters, which hath hitherto, I know not how, been too much neglected, and concerning which I have of late made some Experiments, hath farther encouraged me only at present to acquaint you, That about Michaelmas next, God willing, I shall have a Conveniency, by a Friend of mine, your Neighbour, to send you the true Contents of all the Baths apart, which if you please to examine, and honour me so far as to return me your Thoughts of the Ingredients, being doubtless a compounded Body, I shall, with all Alacrity and Obsequiousness imaginable, give

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you a larger Account of my Observations, which I forbear to do till you please to favour me with an Answer, that so I may not pre-occupy your more exact Enquiry. The thing it self being of so grand Import, and so well suiting with your own Genius, I may promise my self the greater Happiness in your Correspondence, &c. which is all the Trouble shall at this Time be given, by

Your most humble Servant,

T. G.

According to this Letter, I sent the Doctor what I promised, on the 15th of October next ensuing, by my facetious, learned, good Friend, Mr. Alexander Dyer, with this Letter, which, because it contains the rude Draught of what I afterwards took more Pains about, and not much different from what I now publish, I shall here insert.

Honoured SIR,

HEaring nothing of Colonel Morgan, the Person I designed for Conveyance of what I formerly promised; I have now met with a convenient Opportunity, by my worthy Friend Mr. Alex. Dyer, to present you with as true an Anatomy of the Baths, as my present Inspection will permit, viz. The Contents of all the Baths, Kings, Cross, and Hot, in Iron and Glass Vessels; the former Zi . of each, the latter Zii . or thereabouts; that in Glass being all that one Gallon of the Water of each Bath did afford; the other in Iron, not the whole Quantity, but sufficient, I hope, for your Satisfaction, that came from four Gallons, the King's Bath yielding in Iron, on my first Experiment Zxiv ; the Cross Zxii fs; the

to the R E A D E R.

the *Hot* 3ix. 3ii: but on my second Trial performed in the late wet Weather, much less out of the same Vessel, and Quantity of Water, which may suggest something to Enquiry if I find it hold. But usually out of four Gallons, in a Vessel of mix'd Metal, I commonly evaporate it in, I have 3i. out of a Gallon of all the Baths alike, so that I judge about 3ii. to be the common Portion out of a Gallon the Water will afford.

Now of these 3ii, as I suppose, you will easily discover all is not Salt, but, according to my best Observation, I find a third Part only Saline, or 3ii. in 3ii: The Residue, which I have sent under the Name of *Residuum Sedimenti non Salinum*, will not relent, but continues of a gritty Nature, and, I suppose, consists of two different Substances.

The *Ochre* ariseth in a large Quantity, where the Stream of the Bath meets with any Resistance; but what I am not so fully satisfied in for the present is, that though so much continually is breathed out of the Water, nothing Yellow is discovered in the Contents.

The *Oleum Salis Thermarum per deliquium*, is only that Salt I have sent you by the Name of *Sal Thermarum*, relented in the Air, and cleansed from Impurities that will subside, but tinged greenish by a Touch of Copper it met with in Extracting, when otherwise the true Colour is more inclining to Amber.

One thing more also I think to advertise you of, That in Glass Vessels there is a thin Crust in the Outside, covering that Part that is most Saline, as thin as the thinnest Wafer, but not Salt at all, which I have caused to be separated in the Contents of the *Hotb-Bath*, and put in a distinct

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Glass, containing 3i. gr. 10; this more flakey and much less, if at all Saline, being only ʒii. gr. 14. The King's and Cross-Bath are alike, mixed here in one Glass, only the Hot-Bath separated for your farther Satisfaction.

You have also the Sand, Mud, and Scum, in Boxes by themselves, all which I submit to your more exact Scrutiny what Names to call these by, which is the grand thing in question, and *on which will be built, as I conceive, the truest Hypothesis of the Nature and Virtues of these Waters that hath yet been given, and much different from what hath hitherto been supposed and presumed on.*

I hope to have the Honour of a few Lines from you, what your Thoughts are of the Nature of these Particulars, which will be very acceptable to, S I R,

Your obliged humble Servant,

THO. GUIDOTT.

P. S. “ *In an ordinary Infusion of any of the Con-*
 “ *tents in Common Water, you will observe a*
 “ *white gritty Substance, which will harden*
 “ *into a Stone in the Bottom of the Glass,*
 “ *one of which I have sent in the Box con-*
 “ *taining Sedimentum non Salinum; above*
 “ *that a bluish, light, and more dirty Substance,*
 “ *than the Salt in the Water, to which it*
 “ *gives a yellow Tincture.*

The Doctor's Business being much on other Ac-
counts, I cannot understand he did any thing in
this, only in a Latin Letter he had Occasion to
write to me not long after, on the Account of an
Honourable Patron, for whom we then were both

con-

to the R E A D E R.

concern'd, he takes a very kind Notice of my Letters, and Experiments, and gives me Thanks in this Expression, Clarissime Domine, Multum Tibi debeo pro Literis & Experimentis Tuis circa Aquas Thermales mihi jam pridem missis, quæ officia Tua ut gratissima habeo, ita compensare studebo; but sent me no other Satisfaction.

A little after, having an Opportunity of obtaining the Contents of many Hogsheads of the Water, I wrought them all off, and came to an exact Separation and Distinction of Particulars, as expressed in the Observations hereunto annexed, and, as Occasion served, communicated my Experiments to my Honoured Friends, the Learned and Accomplished Sir Charles Scarborough, Doctor Thomas Witherley, Dr. Nathaniel Highmore, and Dr. Thomas Harbeck. This, I think, is sufficient to take off the Surmise of Singularity, if any such Thing, by Chance, should be thought upon.

*And here I cannot but admire how a Judicious Man should be so far imposed on by any Person whatsoever, as to imagine, that a satisfactory Enquiry into the Nature of these Waters was so nice a Speculation, as to be inconvenient or useless [according to these Words; * I have been desirous heretofore to have attempted some Discovery of our Baths according to those Principles: but being thought (by some) either not convenient, or not useful, I was willing to save my Labour, which perhaps might have seemed not to be worth Thanks] For, what can be more necessary, and therefore useful and convenient too, than to know the Principles of any Water we recommend our Patients to? And what did all the Mineral Writers, that treated of such*

* Jord. Nat. Bath, c. 17. in fin. p. 147.

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Waters before him, whose Authority he uses, but either make such Enquiries, or speak by guess? And which of these two is the more useful or convenient, is easily determin'd.

Besides, by this Means we act as rational Physicians, and free the Baths and Mineral Waters from that Asperion they labour under, of being accounted Empirical Medicines; whereas they are the exact Composition of the Best Physician, and perform their Operations by Virtue of the Ingredients they consist of, and the Blessing of God Almighty, as all other good Medicines and Prescriptions do.

Moreover, this way we can better judge of the Reason of the Effects, which, without this, perplex the Understanding with an ignorant Admiration, and we prove no better than the ordinary Spectators at a Puppet-Play, who admire the Motions, but know nothing of the Hand within that occasions them.

I confess indeed, his thinking his Pains might not have deserved Thanks, might somewhat discourage him; but a Man of Resolution would have considered, that Things of this Kind, subjected to publick View, would fall either into the Hands of understanding, generous, and unbiass'd Persons; or else ignorant, self-interested, and narrow Souls: The former ever have been, and will be ever ready to give what Encouragement Ingenuity shall deserve; and for the other, they are not much to be regarded, being best brought to a Knowledge of themselves by an Understanding of their Errors; and as their Mouths are no Slanders, so their Thanks are but slender, if any, Commendations. And, Thanks be to God for it, there have been, and now are, many worthy, brave, and generous Spirits in this our Nation, who can discern and make Distinction

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stinction. 'twixt Things that differ; else had would be the Condition of those that have broken through that Opposition, at which others have boggled, and think it no Disparagement to undergo rude Censures from the ruder Multitude, in Prosecution of a Design for publick Advantage.

Although the Credit of the Waters hath been preserved by Bathing, and advanced by Drinking, especially these two Summers last past, yet a far greater Degree of Reputation may be acquired, by a more particular Account of the more remarkable Cures that are annually wrought, principally thereby; which being digested into the Nature of a Register, would mightily conduce to the Satisfaction of those that seek Remedy here in the like Distempers. And although I have endeavoured, what in me lay, to promote so necessary a good Work, yet such is the Stupidity of some to Things of their own Advantage, that nothing of this Nature hath yet been performed, although recommended by the Learned Doctor Jorden, then practising on the Place, and often inculcated, though with like Success, by myself: So that, to the wonderful Honour of those on whom it must reflect, the Waters have been more beholden to the Gratitude of Foreigners in Registering their own Cases, than to the Care and Duty of those that are at Home. I shall instance in the Case of Sir Humphry Lloyd, who having received a Hurt in his Hip, by the Kick of a Horse in Milan, was grievously afflicted with a Sciatica for a Twelve-Month's Time, and after having made use of much Physick, from several Physicians, to little purpose, in only Six Days using these Waters, was perfectly recovered. His Words are*

* N. B. Ch. 18. in fin. p. 163.

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these; † Alia Belgarum urbs, Ptolomæo, Aquæ Calidæ; Antonino, Aquæ Solis; Britannis, Caer Badon; & Anglis, Bathe dicitur, Balneis Aquarum Calidarum saluberrimis clara; Cujus rei ego certissimus testis esse possum. Nam cum ex ictu equi Mediolano, in Italia, excepto, dolore Schiatico duodecim continuis mensibus laborarem, diversisque Doctissimorum Medicorum auxiliis non convalescerem, his Balneis, cum tantum sex diebus usus essem, sanitati pristinæ restitutus sum.

And that I may mention one fresh in the Memory of all, whose Gratitude in this kind deserves a Remembrance, Mr. John Revet, an Aged Man, hath very lately publicly testified his Cure of an Hemiplegia, in a Month's Bathing, by an Inscription round a very fair Brass Ring, on the Right Hand of the Entrance into the Queen's Bath out of the King's, after this manner, Thanks to God. I John Revet, his Majesty's Brazier, at 56 Years of Age, in this present Month of July 1674, in this Place recovered a Cure of Health and Limbs of the Dead Palsey, on one Side, from Head to Foot.

*That this way of Registering of Cures was also thought necessary, and recommended before the Time of Dr. Jorden, may appear from the Words of Mr. Jones, an honest Cambro-Briton (whose Authority I am constrained to make often use of in the following Discourse, in regard he is the only Man that hath treated any Thing largely of these Waters,) which I recite as they are, being the plain Words of an Honest-meaning Man. * I wish, saith he, that you leave a Note of the Commodity re-*

† *Fragm. Descr. Brit. p. 16.* * *Bath's Aid, l. 4. fol. 33.*
ceived,

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ceived, and a Knowledge of your Condition and Calling in the Records of the Mayor of the City, where it shall be Registered, until a Physician be appointed, who then shall be joyned with the Mayor, paying to the Poor-man's Box, and Four-pence for Registering your Benefit received there. † [*And in another Place;*] Alway provided the Day of your coming thither be noted before you enter into the Baths, and the Day of your Departure, with the Country of your Habitation, Condition, or Calling, with the Infirmities or Cause you came for, in the Register-Book kept of the Warden of the Bath, or the Physician that there shall be appointed, and the Benefit you received, paying Four-pence for the Recording. *This Register may be so contrived, as that the Patient's Name, or only Letters thereof, as shall be thought expedient, with their Place of Residence, Distemper, and Time of using the Waters, may be express'd in short; a Model whereof, in many Instances, we have in Jo. Bauhinus de Aquis Bollenfibus, lib. 1. cap. 17.*

And whereas mention is here made of the Poor-man's Box, it gives me a good Occasion to remind this Age, of what prudent and charitable Disposition the former Age was, in which, for the necessary Support of the many Poor that came hither for Relief, (now sufficiently Numerous and Burthen-some too) Reparations and Conveniences of the Bath, and other good Uses, a Tax, or Pole-bill was made, and willingly consented to by the Users of such Waters, by which a certain reasonable Rate, or Sum, was required of every Man or Woman of all Conditions, from a Duke to a Yeoman,

† Buxton's Benefit, Fol. 22.

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by which all Clamours, now too frequent, were prevented, and all Occasions of Exactions taken away, no Person paying, or requiring more than what was commonly known to be their Due, reserving their Gratuities to dispose of as they please. The Money collected to be put into the Treasury of the Bath, and intrusted in the Hands of one or two honest and sufficient Persons, who should, every Michaelmas, give up their Accounts, and dispose of good part of the Money, chiefly to the Use of the Poor Abroad that come with good Certificates, or Accounts of their Condition, to be approved of by competent Judges in this Case, and other necessary, good and charitable Uses, as shall be thought requisite; provided the Baths, Pumps, or any of their Appurtenances be supply'd, and kept in good Order and Repair. And this was never intended in any violent and compulsory Way, but only as a fair Proposal to the better-disposed Persons, who, by their good Example, and Readiness to comply in this Particular, may have an efficacious Influence on the more Captious and Excepting, to beget in them a better Understanding of this charitable and orderly Design.

Neither can this Tax, in Reason, be imagin'd to be prejudicial to the Waters, as some others are reported to have been; on the Imposition of which, the Waters are said to have lost their Virtue; for, however the Truth of such Stories may be admitted, which are deliver'd by credible Authors, and I cannot contradict, yet certain it is, that if any such Thing ever happen'd, it was either on the Restraint of a publick Resort, by denying poor People the Use of the Waters; or, else by an Impost collected by the Officers of the Prince to his private Advantage; whereas, this is only to prevent Exactions

TO the READER.

actions and moral Abuses, between Man and Man, and the Poor rather hence to be relieved than exacted of, with a Probability of a much greater Resort, that will be procured by a reasonable Demand, and good Order withal.

The Overplus of this Collection, if rightly manag'd, and the Years prove lucky, may, in a short Time, make a Purse for the Covering One or Two of the Baths also, whereby the Waters would be rendered Useful all the Year, which, by Reason of the Coldness of the ambient Air, and Fear of Injury thereby, and no other, are thought not so fit to be used in the Winter Season, the Waters then being as effectual as in Summer.

And this would be agreeable to the Use and Custom of most of the Baths in Europe, which are cover'd, and thought, by the best Physicians, to be a Means of keeping the Waters to an even Temper, being an equal Defence against the Wind and Cold of the Winter, and the troublesome Heat of the Sun in Summer; so that nothing External causing Alteration, supervening, the Benefit of the Waters may be safely received from the First of January, to the Last of December, which would be much for the Relief of those infirm Persons that require a longer Stay than ordinary here, and by their so long Absence from the Bath, do but weave Penelope's Web, undoing in the Winter, what is done in Summer; whereas if they, in this Manner, as we say, follow their Blows, they probably would not only prevent a Relapse, but set themselves in a Way of perfect Recovery, with one Resolution, without many Comings at several Seasons, being many times not so well at their second Coming, as they went away on their first Season of Bathing.

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For this Use, I think the Queen's-Bath most convenient, both in regard it is but small, and also more especially for the Conveniencies of the Slips, and Houses about it, where it is almost no more than out of Bath, into Bed; and, if well cover'd, and Care taken in Rising, may be as well as if a Man made use of a Bath in his own House or Chamber where he lies. After which the Cross-Bath may follow, if it be thought fit; the King's, and Hot, being kept open still.

But against this, I foresee, Two Objections will be made. First, That it will be inconvenient in the Summer-time to sit so close, if no Offence doth arise from the Steam. And, Secondly, That it will be injurious to the Lights about the Bath.

To the First, I Answer generally; That those Persons that desire Good, will think nothing an Inconvenience that is in order to it, and those that come for Pleasure may be somewhere else; yet, that it may appear to be made out some other Way, I suppose the Increase of Heat, which sometimes that Bath wants, procured by keeping the Air out, and the Steam in great measure in, (which yet will not be more than will well be endured) will make a sufficient Recompence for this supposed Molestation. And as for the Steam, a Vent-hole or Tunnel at the Top, will so discharge, that it may not be offensive or troublesome at all.

*As to the Light, the Cross-Bath will certainly inconvenience none, and the Queen's may be so contriv'd, if made flat, as to do the same; but if built more erect for gaining Room below, there will be but a very little Blind, or, perhaps, none at all, to the lower Windows on the Hart-lodging Side, which House, by reason of the Accommodation of
the*

To the R E A D E R.

the Slip thereunto belonging, being, in all Probability, likely to partake most of the Profit, may contribute a little in this Kind. But, to avoid all Exception, the Cover may be so made with Shutters on a Timber-Frame, that it may be easily taken off, if there be Occasion, and as soon closed up again, if Necessity shall require.

One Thing more I shall only add, which, as a means to establish greater Order and Content, with Submission to more political Judgments, I here propose; That I conceive that the Persons having Dependance more immediately on the Bath, may be better paid by Salaries, than the Nunquam-satisfactory Way now on Foot; that their Number may be lessen'd, being by that Reason, and (the Consequent thereof) their Necessity, only such as repine at now, and prey one upon another; and that Two Serjeants, Four able Men to manage the Pumps, and cleanse the Baths, Four Women to introduce and place the Females; with Twelve Chairmen, may be sufficient. The Salaries to be paid them by the Officer in Chief, collected by the Serjeant, and raised by a moderate Demand, by the Poll, from the Users of the Waters, according to their Conditions, Quality, and Time of Stay at the Bath, expressed in a Table for that Purpose mentioned before; and if any other clamorous Demands, uncivil Deportment, Neglect, or Want of Duty, should, at any Time, happen in those Servants, upon Complaint made, to be animadverted on, suspended, or discharged by the Authority under which they are. These Things some may make light of, but the Prudent will consider.

T. G.



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A
DISCOURSE
OF
BATH,
AND THE
HOT WATERS There.



CHAP. I.

The INTRODUCTION.

HAVING formerly, in the Year 1668; annexed a brief Discourse of *Bath* to one of Dr. *Jorden's* of Natural Baths and Mineral Waters, under the Name of *An Appendix concerning Bath*, by which, and some other Pains I had taken about the Treatise itself, I thought I had obliged (as was the Opinion of most) not only the Relations of the de-
C ceased

ceased Author, but all his Friends and Well-wishers; but meeting, contrary to all Expectation, with rude and unhandfom Returns from an Impudent Person, to whose Temper the modest Doctor was a great Stranger, and of whose Behaviour he would be much ashamed, were he now alive; who on his pretended Relation hath repaid me with ill Language, and foolishly threatned me with Trouble for my good Will. Now to put an End to all Disputes of this Kind, I have thought fit to appeal to any understanding Person, that hath his Senses exercised, and his Wits about him (for all have not, and some have none at all) Whether my Additions have been any Impair to the Doctor's Reputation, whom I have treated with all the Civility imaginable; and for the Sale of the Book (a good Argument of its Acceptance) I believe there were not more sold in the Doctor's Life-time, of what he printed himself, than went off the First Year of my Impression. But, to silence all Cavils and silly Objections of this Nature, I have discharged that Author, and published in this Discourse my own Thoughts and Observations; and how much different they are from his, or agreeable to Truth, may best be determin'd by the ingenious Reader.

I did intend, indeed, according to my Promise in the End of my Preface to the Edition of Dr. *Forden*, to have amplified that small Discourse into an *History of Bath*; but finding no Encouragement since to that Design, and many Things that have made me alter my Resolution, my Intentions are to wave that,
and

Ch. I. *the HOT-WATERS there.* 3

and apply myself, in some convenient Time, to the *Roman Court*, where I shall have a fairer Trial, and more Justice done me. In the mean Time, I hope this may, in some measure, stop the Gap, and release me of my Obligation to the Candid World; especially considering, that the Antiquities of the Baths and City can hardly, I think, be improved higher, and the Mystery of the Sacred Waters of *Minerva*, is not to be profan'd; which it wants but little of, if idly prostituted to vulgar Capacities; which, besides that they are incompetent Judges in other Matters, are apt to put a sinister Interpretation on those very Things, that really are, and were so intended, for their own Advantage; neither had I published the Observations I now do in this Language, had it not been on a more particular Account.

The ill Usages, and great Indignities I have already met withal, from an ungrateful People, in the Prosecution of my Design of making further Enquiries into the Nature of those Waters, are not to be mentioned; they are sufficiently known to be Products of Envy and Malice; and as I have hitherto contemned what pitiful Opposition could be made against me by the united Strength of Envy, Pride, Beggary and Revenge; so I shall not surcease my Thoughts in due Time of performing that which will be better esteem'd by more Judicious Persons, and render me and my Design most acceptable when best understood. It was a fit Return of a grave Divine to a vain-glorious Opposer of his good Inclinations, *Nec propter Te capi, nec propter Te desinam.* Thou, Satan, said

said he, *hast nothing to do with my Concerns, for thou art at neither End of my Design; and as I did not begin to do thee a Kindness, so I will continue notwithstanding thy Rage.* Such unclean Spirits have no more to do with publick Affairs, than to interrupt the Quiet of better than themselves; and are like a troublesome Curr on the Road, that doth little else, with a Besom Tail, and a whiffing Bark, than make a Man well mounted look back, his Horse kick, and so returns.

It hath ever been the Fate of New Discoveries, to meet with coarse Entertainment at their First Appearance; and whereas Men are usually courteous and civilly demean'd to strange Persons, they treat strange Opinions, and new Inventions at another rate. 'Tis the only Policy accounted to keep a Ballance among Men; and if any one, by a more than ordinary Industry, and God's Blessing on it, hath made at any Time a Conquest in the Intellectual World, whereby 'tis thought he may get the Start of his Neighbours, a rotten *Cabal* shall make Head against him, and, perhaps, use him with as much Severity, as a forceable Intruder on another's Right; whereas the Secrets of Nature are free to all, and the Victor here, enters not by Blood, and Rapine, and Tyrannical Oppression, but in a Way, both innocent in itself, and advantageous to others.

When I reflect on the hard Measure the renowned Dr. *Harvey* met withal, from the Pride and Peevishness of some conceited Brethren (who esteem nothing Current, but what bears their Image and Superscription, if not minted in

in their own Brain) on his First Demonstration of the Circulation to the World, I cannot but conclude, if I had no other Instance for it, That neither Ingenuity, Learning, Modesty, nor any Thing that is good and truly valuable, can give Protection from, though a sufficient Antidote against, the Poyson of Envy; *Envy*, that spreading Ring-Worm! that *Ubiquitarian* Infection! that Canker of what is Sound, and Rust of what is Bright! to be found almost in all Places, in Town and in Country; in the Shop and in the Street; in the Tavern and in the Ale-House; it hovers over All, and pitches where it can, 'till at last, if it hurt not others, it preys upon itself;

*Thou wicked Fiend! that ne'er didst Good,
But hast perversly it withstood,
And ever wilt, 'till Time shall be
No more, or We
Be rid of Thee.*

But to pass by Things of this Nature, with that of the unconcerned *Græcian*, to as abusive Persons, *Εξεσι κλαζομένοις ἀσχημονεῖν; or that of *Tacitus*, *Convitia spreta exolescunt*, the best Answer being nothing-at-all; I shall rather choose to acquaint the Reader, That whereas I conceive, when I writ my Letter of Observations, that *Bitumen* and *Sulphur* were not primarily concerned in the Body of the Waters, and, therefore, no way observable in the Contents; by fresher Experiments, and Observations of a later Date, I am inclin'd to believe, that *Sulphur* is one Ingredient in the Contents

of the Waters, though not proportionable in Quantity to the Salts, and lost in the bringing them to a better Colour. For if Two or Three Ounces of the Contents, which at first much resemble the coarser Sort of Sugar, be put into a Crucible, in order to Fusion, when the Crucible is Red, and before the Salt doth run, there is the perfect Colour and Smell of Brimstone, insomuch, that it may be sensibly discerned in any Part of the Room; and as the Salt draws nearer the State of Fusion, the Sulphur wastes and is diminished; so that, as Dross or Recrement, it burns off in Calcination, and is no way concerned in the refined Salt, though one Ingredient in the Waters, and contained in their Body.

I shall further add, that I made a *Lixivium* of the Salt calcin'd before Fusion, when probably the Sulphurous Parts, or so reputed, were not all consum'd, and observ'd so great a *Fætor* in the *Lixivium*, representing Sulphur so effectually to my Smell, that it presently obtain'd the Testimony (if that be any thing) of that Sense.





C H A P. II.

The Opinion of a late Author concerning the Nature of the BATHS of Bath.

AND here I cannot but take Notice of a * Novel Writer, who Magisterially thus determines: *Quod ad Nitrum & Sulphur attinet, quibus Thermas Bathonienses imbutas esse hactenus creditum est, eorum neutrum Aquis Thermarum istarum solutum esse arbitror: i.e. As to what concerns Nitre and Sulphur, with which the Baths of Bath have hitherto been thought to be impregnated, I suppose there is nothing of either of them dissolved in the Waters.*

A bold Assertion! which had it been vented and believed but 50 Years ago, would have prevented much Trouble in evincing the contrary; but, since 'tis in Fashion to be peremptory, I do assert, *That both Nitre and Sulphur are to be found in all the Baths of Bath, and that dissolved in, and mixed with, the Body of the Waters.* In order to the Proof of which, I shall take some Account of the fore-mentioned Author's 15th Chapter of his Tract of Sal-Nitre, the Arguments he hath against it, and his Opinion to the contrary.

His Words, therefore, as well as I can translate them, are these:

* John Mayow, LL. D. & Med.

“ Among the most celebrated Baths, we may
 “ justly reckon those of *Bath*, in which admir-
 “ ble Waters, a continual Vestal and Sacred
 “ Fire is maintain’d, as if Things of a most
 “ different Nature were interleagu’d. Before
 “ I come to the Manner how these Baths re-
 “ ceive their Heat, it will not be improper if
 “ I make some Enquiry into the Contents of
 “ these Waters.

“ It is therefore manifest, that the Baths
 “ of *Bath* are impregnated with a certain Salt
 “ of an Acid Nature; for if any *Sal Alkali*, or
 “ volatil Salt, purely salin’d, be mixed with
 “ these Waters, a Precipitation will ensue, and
 “ the Waters will become turbid, and of a
 “ milky Nature.

“ Moreover, The *Bath* Water, poured on
 “ boiling Milk, will coagulate it, as any other
 “ Acid doth.

“ Neither doth this Acid Salt seem to be the
 “ only Salt of the *Bath*, but is complicated
 “ with an Alkali; for if the Water be evapo-
 “ rated quite away, a certain Salt of a more
 “ fix’d Nature will be found in the Bottom of
 “ the Vessel, which, on the pouring of any
 “ Acid on it, will ferment.

“ Of the same Nature also, are the Mud
 “ and Sand of the Bath, which are wrought up
 “ with the Springs; for any Acid Liquor be-
 “ ing poured on them, an Ebullition will
 “ follow.

“ There may be also observed in these Wa-
 “ ters a Salt, or rather a Lime-Chalk kind of
 “ Earth, sticking to the Bottom of the Gouts,
 “ or

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“ or Passages, almost in all Places where the
“ Water passeth.

“ From what hath been said, may be col-
“ lected; That the Baths of *Bath* are impreg-
“ nated with a certain Acid Saline Salt, and
“ the Salt of the Bath seems not much unlike
“ Tartar vitriolated, or Aluminous Salt.

“ The Reason why these Salts destroy not
“ one another, but each of them ferments with
“ its contrary Salt, may be understood from
“ what hath been delivered in the former
“ Chapter: To wit; These Salts are so imper-
“ fect, that in Conjunction they cannot destroy
“ one another. But more of these Salts here-
“ after.

“ As to Nitre and Sulphur, with which the
“ Baths have hitherto been thought to partici-
“ pate, I suppose, that neither of them is dis-
“ solv'd in those Waters.

“ That there is no Nitre in the Waters ap-
“ pears by this, That the Salts that remain af-
“ ter the Evaporation of the Bath Water, put
“ on a Coal, burn not, as Nitre doth. Altho'
“ I shall not deny, that those immature Salts
“ of an Alkali Nature, (which are also con-
“ tained in the Sand, and * Mud of the Bath)
“ being expos'd some time to the Air, may,
“ perhaps, by its Influence be converted into
“ Nitre.

“ As to Sulphur, which hath been so much

* *If that be meant by Fimus in the Author; to ex-
press which, Limus or Lutum had been more proper.*

“ reported to be in all Baths, ’tis not, I believe,
 “ dissolved in these Waters. Because,

“ If a Solution of Alom, Vitriol, or any
 “ other Salt, whether Acid, or Fix’d, be
 “ mixed with the Water of the Bath, Sulphur
 “ discovers not itself to be precipitated, either
 “ by a fetid Smell, or any other Sign; which,
 “ notwithstanding the Solution in the Water of
 “ unslack’d Lime, or made into a *Lixivium*,
 “ doth appear, where the Sulphur by the Af-
 “ fusion of any Acid Liquor is precipitated.

“ I am not ignorant that the Water of these
 “ Baths, if Salt of Tartar, or a purely volatil
 “ Salt, be cast into it, will presently turn
 “ white, as is declared before; which Colour
 “ proceeds not from Sulphur, but a Stony, or
 “ Aluminous Matter precipitated, not much
 “ unlike to what is observed in the Water of
 “ unslack’d Lime, when any fix’d Salt is mixed
 “ therewith; in which, notwithstanding, it is
 “ not to be supposed the Sulphur is dissolved;
 “ for if Sulphur be boyled in Water of unslack’d
 “ Lime, the Water becomes White, not by
 “ the Affusion of a fix’d Salt, as before, but
 “ of an Acid; so that fix’d Salts may dissolve
 “ Sulphur, but not precipitate it. Wherefore,
 “ if Sulphur be contained in the Waters of the
 “ Bath, they would be precipitated, not by a
 “ purely Saline, as formerly, but an Acid
 “ Salt; and the Sulphur so precipitated, would
 “ discover itself by a fetid Smell, which it
 “ doth not do.

“ To which I add, That an Acid Salt, or
 “ something Aluminous, doth seem to predo-
 “ minate in the Baths aforesaid; so that they
 “ become

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“ become altogether unfit to dissolve the Sulphur.

“ Moreover, If Common Sulphur be boyled in those Waters, they are never tinged with a Yellow, or Sulphurous Colour, neither can Sulphur, by any Means, be precipitated from the Decoction, as I have often experimented.

“ And, therefore, I much admire the famous *Willis*, in his Treatise of the Heat of the Blood, should affirm, That Sulphur boyled in Bath Water, may be dissolved after the same Manner, as if boyled in Water of unslack'd Lime.

“ Now if Sulphur seems to be dissolved in the Waters aforesaid, the Occasion of the Mistake I suppose to be, That the Decoction was made in a Vessel, in which, some fix'd Salt had been decocted; so that the Solution of the Sulphur may be made by some Particle of a fix'd Salt, with which the Vessel might be season'd.

“ Concerning the Baths of *Bath*, 'Tis the common Opinion, that Silver dipped into them is coloured Yellow, in the same Manner as if it were cast into a Solution of Sulphur; and hence it is supposed, that the Baths have Sulphur in them; but Experience evinceth the contrary; for Silver put into the Bath Water becomes not Reddish, or Yellow, but rather Black.

“ The Mistake may seem to arise from this, That 'tis customary with the Bath-Guides to tinge, and, as it were, gild over Pieces of Silver with a Salino-Sulphurous Mud, or
“ Dung,

“ Dung, such as is often found in Houses-of-
 “ Office, and put them off to Strangers, for
 “ a little Profit, as if they were coloured with
 “ the Bath Water.

“ And here this is to be noted, That a kind
 “ of Bituminous Mud, with a small Pittance
 “ of Common Sulphur, is brought up with
 “ the Springs, which only swims on the Top,
 “ or else continues at the Bottom, but never
 “ is dissolved in the Waters themselves.

“ Neither is Sal Armoniack, as some ima-
 “ gine, to be found in these Waters; for if,
 “ on the Solution of Sal Armoniack, Salt of
 “ Tartar be injected, the purely saline volatil
 “ Salt (of which Sal Armoniack in Part doth
 “ consist) being at Liberty from the Acid Salt,
 “ to which it was formerly united, will pre-
 “ sently fly off into the Air, and will quickly
 “ be discovered by a pungent affecting the
 “ Nostrils, which is never observed in the Bath-
 “ Waters.

“ Lastly; As to Vitriol, the Crosse and Hot
 “ Bath seem to have none at all; for if Galls
 “ are beaten, and infused in these Waters, they
 “ neither turn Purple nor Black, which would
 “ certainly be, if these Waters had Vitriol in
 “ them.

“ The King's Bath seems to have a little Vi-
 “ triol in it; for if some beaten Galls are cast
 “ into that Water, it will have a Light Tinc-
 “ ture of a Black Purple Colour.

“ 'Tis also to be noted, That a certain* Mineral

* Minera for Minerale, is corruptly, tho' chymically,
 used here.

“ of a metallick Nature, ariseth out of the
 “ Earth, with the Springs of the Bath, which
 “ is easily turn’d into Vitriol. For if any
 “ acid Liquor be affused on the Sand (which
 “ breaking out with the Springs, is found in
 “ the Bottom of the Bath) it being corroded
 “ with an acid *Menstruum*, not without a re-
 “ markable Effervescence, will in part be con-
 “ verted into Vitriol, just as it happens to
 “ the Filings of Iron corroded with an acid
 “ Liquor.

“ For if that Sand of the Bath corroded
 “ with an acid Liquor, be put into the Infusion
 “ of Galls, the Liquor acquires an atropurpu-
 “ reous Colour. Whereas if the Infusion of
 “ Galls be put on the Sand newly taken out
 “ of the Bath, and not corroded with an acid
 “ Liquor, it will by no Means be of a Purple
 “ Colour; an apparent Sign, that the metal-
 “ lick Sand of the Bath, unless corroded with
 “ an acid *Menstruum*, doth not turn to Vi-
 “ triol.

“ It is further observable; That the Sand of
 “ the Bath kept some Time, and exposed to
 “ the open Air, will, of its own accord, be
 “ converted into Vitriol; for if that Sand be
 “ mixed with the Infusion of Galls, the Water
 “ will contract an atropurpureous Appear-
 “ ance.

“ Moreover, If it be laid on the Tongue, it
 “ hath a perfect vitriolick Taste; and no won-
 “ der, for the Nitro-æreous Spirit, after some
 “ Time, closeth with the metallick Mineral, and
 “ Salino-Sulphurous Marchasite, of which Vi-
 “ triol useth to be made, mixed in the Sand,
 “ and

“and causeth it to ferment, and at last, as
 “was shewed before, converts it into Vi-
 “triol, &c.



C H A P. III.

An EXAMINATION of some Particulars
 in the former CHAPTER.

HOW far this Author hath ploughed with my Heifer, I leave to the Consideration of those that have been any way acquainted with my Design; and shall only here take Notice, what Observations are agreeable with, or different from those I have often made with the greatest Exactness, and repeated Trials, [submitting all to the unbias'd Judgment of indifferent Persons.

And first of all, I concur with him, that the Baths of *Bath* are in Part impregnated with a certain Salt of an acid Nature; but why this acid Salt should be called *Aluminous*, I am not yet so fully resolv'd, as much on other Accounts, so somewhat on this, That although an acid Spirit be in *Alom*, yet the most perceptible Taste is either *acerbe* or *austere*; which being not observed in these Waters, I have so much Reason to judge *Alom* not predominant, as asserted here.

The Experiment he mentions of Precipitation or Alteration of the Waters to a milky

Colour, or almond Milk, we owe to the Ingenuity of the Industrious Mr. Stubbe, who, though he had not the good hap to discover what was precipitated, yet gives it the general Name of an * *insipid Magistery*, and is nothing else but *Freestone* finely wrought, and intimately mix'd with the Body of the Waters.

If any blame me for calling it by so homely a Name, I desire they would consider, that I had rather call it so than a metallick Mineral, or a *Salino-sulphureous Marchasite*, supposing it more agreeable to all their Apprehensions that will be concern'd in Things of this Nature, and whom I would not have abused with hard Names and uncouth Expressions; the Effect of Ostentation, or Sanctuary of Ignorance.

That this is *Freestone* appears by this, that 'tis insipid, gritty, scowers, leaves a white Colour like Chalk on the Fingers after it, and is inclinable to an Union into a stony Consistence.

That this is not *Calx vive*, or any *lapis Calcarinus* that holds Affinity with it, I am much induced to believe from this, That neither the † *Insipid Magistery*, nor the more gritty Powder, being nothing different but in Fineness and Colour, will, either alone or together, open the Body of Sulphur, which is usual with *Calx vive*, as I have fully experimented by decocting two Parts of the Powders with one of Sulphur in a proportionable Quantity of Water, which gave the Water very little Alteration, and as little was precipitated. To make

* *Pl. ult. r. d.* To a Nonpl. p. 135. † See *Obs.* 85.

it farther evident, I calcin'd a large Crucible of it with as strong a Fire as could well be given, yet nothing quick or limy did appear, but dead and gritty Ashes, which, mixed with Water, neither made it white, nor created any Disturbance. But more of this in what will follow.

That the Bath-Water will coagulate Milk, I confess, but not as any other acid Liquor doth; for this doth it sooner upon Affusion, and makes a hard Curd; that with the Bath-water, must boyl again, and that pretty smartly, else a soft white Curd, as commonly it is, will not appear.

I also agree with the forementioned Author in this, That there is a considerable Quantity of an * *Alcalizate* Salt, mixed with some other Salt, in the Body of the Waters, and apparently distinguishable by the Taste, as well in a *Lixivium* made of the Contents of the Waters, as in both the coarser Part, the Result of the Evaporation, and also the purer Part, when made white and refin'd; and that this *Alkali* doth constitute good Part of the Saline Matter, with which the Baths are impregnated.

For I am apt to believe, that great Part of the Acidity is breath'd off in Evaporation,

* Under this Notion, I take the Liberty to understand Common Salt, or Sal Marine, consonant to the proper Notation of the Word: for the Salt of Kali or Glasswort is Marine, though used indifferently by the Chymists for the fix'd Salt of any Vegetables, by Calcination.

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either in the Bath or over the Fire, or both ways together, in regard very little of that Taste is perceptible in the Salt extracted, but the Saline is easily discover'd. To the Confirmation of which the Acting also of Acids on it may somewhat conduce, and the Experience of many this Summer, who, according to my Directions, have dissolved the Salt in the Bath-water to improve it, and have sensibly found an Increase in the other Taste, but little or nothing at all in Acidity.

Neither doth the *Lixivium*, though made very strong, nor the *Oleum per deliquium* dropt 20, 30, or 40 Drops into a small Proportion of Water, tinge with Galls either Purple or Black.

I may also urge as an Argument for the Evaporation of *Vitriol*, the Abundance of a yellow *Ochre* which ascends with the Steam of the Bath, and is there chiefly to be found where the Steam of the Water meets with any Resistance, as I have noted elsewhere, which probably may be the *Terra Vitrioli*: And although 'tis not very easie to give the Reason, why the *Vitriol* should not be as visible as the *Ochre*, or else make it more acid than we find it to be; yet if we conceive it to be in *succo primitivo*, *aut Solutis principiis*, and there *per halitum*, and so *per transitum* too, it may better be conceived to go off, and not imbody as the other Salts do. Yet that all the Acidity is not breathed of, will appear from this, That the Bath-water cold, will coagulate Milk. And, what is more, the same Water distill'd from
D a Gal,

a Gallon to a Pint, a fourth Part of that Pint will make a Curd, when the distill'd Water in the Receiver will do nothing at all : Which may probably proceed either from something Vitrioline, or rather from the Acidity of Sulphur, in regard the Salt made white, in which is nothing wanting but the Sulphur, will not coagulate, as the Water doth ; whereas the browner Salt before Calcination, dissolved in Spring-water, will. So then this *Alkali* is but one Part of the fix'd Salt, found in the Bottom of the Vessel after Evaporation *ad siccitatem*.

For a further Confirmation that an *Alkali* is contained in the Waters, which, considering the Quantity that may continually be made evident both to Sight and Taste, will scarcely be judged to need other Demonstration : Yet 'tis observable, that the Cross-Bath having lately been kept drawn Four or Five Days, the saline Matter not meeting with Water sufficient for its Dissolution, was driven up in Substance from the Springs, and again reverberated by the ambient Air, and incruusted on the Tops of the Stones that were above the Water in the Bottom of the Bath, which gave me some Divertisement to behold, and, on Examination, appeared much *alkalicate* both by Taste and Ignition ; some Pungency also I observed in it, which I rather judg'd to proceed from the Acrimony of *Nitre* than *Tartar*, but the predominant Taste was clearly *alkalicate*, which, after the Nitrous Parts were waisted, was less exceptionable in the remaining Calx on the Iron after Burning, in which the

Alka-

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Alkalizate Taste was most remarkable; not to mention its Crepitation, and that some Pungency also is observed in an *Alkali* itself.

To make it further evident that this Accretion did probably arise from the *Minera*, I believe not far distant, and was not engendred or contracted from some floating Particles in the Air derived elsewhere, and there settling by Way of Magnetism, as some may imagine, 'tis further remarkable, That neither the Stones under Water, nor, what is more Material, any Stone either of the Seats, or in the Sides of the Bottom of the Bath, remote from the Water, had any Salt affixed to them, but only those, as I may so term it, that peeped out of the Water, the Tops of which only, as I said before, were incrustated. So that had a Magnetism any Place here, the Salino-nitrous Particles must, I conceive, have lighted as well on the Stones of the same Nature hard by, as where they were; the Reason of the Thing being much the same. For a fuller Testimony of this, See *Obs.* 88.

I acknowledge also this, That a great Fermentation is produc'd by the Affusion of Acids on the Sand and Mud of the Bath, (but do not tell you who first observ'd it) and a much less on the Scum; yet I must be excus'd in this, if I say, That I cannot conceive how this should arise from the Action of Acids on a Saline Matter, in regard it transcends my Understanding to apprehend, how any Salt can possibly lie at the Bottom of the Bath, either in the Sand or Mud, undissolved, and the Wa-

ters no higher impregnated than we find they are.

'Tis a trivial Observation, that what is dissolvable in any Liquor, the Pores of it will receive 'till it can hold no more; neither can I be yet persuaded, that there are just so many Porosities in the Bath-water assigned for *Vitriol*, and the rest taken up with other Bodies, seeing the Dissolution of *Vitriol* in the Bath-water afterwards, and the Alteration in Taste that happens thereupon, is sufficient to give me Satisfaction to the contrary.

But to speak a little more to this, because the Author insists so much upon it; If any *Vitriol* be contained in the Sand, 'tis no Absurdity to conceive that warm Water may dissolve it and fetch it out; now, if half a Pint of warm Water be poured on an Ounce of Sand, with what Agitation you shall think convenient, and thus let stand infused ten or twelve Hours, the Water then decanted, and the Sand dried and weighed again, there will be little wanting in the Weight, abating for the *Ochre*, which ariseth first to the Top, thro' the Body of the Water, much like white *Vitriol*, afterwards precipitates and settles at the Bottom on the Sand, and is hardly preserved in the Decantation.

The Ebullition therefore, on the Affusion of acid Liquors on the Sand, I conceive doth arise from somewhat not saline (if Taste be the Judge) of which I shall treat more at large by and by: So that the Sand and Salt are no further of the same Nature, than as Fermentation may arise upon different Commixtures.

How

How this may be reconcil'd to the Experiment I sometime made, of making Ink with Bath-water and Galls, and the Sand of the Bath, with other Things which might have been no small Encouragement to this Opinion, I shall have Occasion in Part to declare hereafter, but more when I find my Answer is required.

As to the Salt, or rather, to use the new-made Word, *Calcineous* kind of Earth, sticking to the Bottom of the Gouts and Passages, almost in all Places where the Water passeth, I was never yet so happy, though I have searched particularly, to find any such Thing. I confess I have heard it spoken, that five Years ago, or thereabouts, there was a Gout out of order at the Cross-Bath, in the rectifying of which, there was observed some such Matter adhering to the Passage; but this, I suppose, was as much above the Civilian's Knowledge, as the Physicians, and whether a bare Tradition with some other Uncertainties, to say no worse, be a sufficient Foundation for this Hypothesis; *That the Salt of the Bath doth much resemble a Vitriolated Tartar, or Aluminous Salt,* I shall leave those to determine that know the Meaning of this approved Sentence, *Nullum simile est idem.* And seeing that the Author chooses to call this adherent Matter by the Name of a *Chalky kind of Substance*, rather than a *Salt*, I think I may not be much mistaken if I imagine it to be *Free-stone*; concerning which I can say no more, 'till I shall happily meet with the like Accretion,

22. *A Discourse of BATH ; and* Ch. III.

That the Fermentation on the Affusion of Acids on the Sand, ariseth chiefly from the Acting of that Liquor on *Free-stone* in conjunction with some testaceous Particles, and not from any other saline Matter, seems evident from this ; That whereas these Parts with a blue Clay or Marle, Rubrica Ochre, and Crystal-pebbles, are clearly distinguishable by a Magnifying Glass in the Sand, when the acid Liquor hath done its worst, and the Difference between the Sand and it, is amicably compos'd, the remaining Particles of Sand that will not ferment, are only some Part of the Marle and Crystals ; And this I call *arena castrata*, because, by this Means, the Sand loses its fermenting Vigour, though the Stones do remain.

And whereas the Mud of the Bath, which seems chiefly to consist of this blue Clay or Marle, with something Sulphurous, will do the like ; the Fermentation I conceive doth arise not so much, though something I confess, from the Earth itself, as the Testaceous Particles with which it abounds, in which Earth nothing Saline can be discovered to which the Ebullition may make any Pre-
tence.

To this may be added ; That the Colour of the acid Liquor, after Saturation by the Sand, is altogether the same with what ariseth from the *Freestone*, both equally resembling the Infusion of the Filings of Steel ; so that in this also there is an Agreement.



C H A P. IV.

Of NITRE in the BATH-WATER.

THat *Nitre* is contained in the Body of the Waters is evident from this, that it may, by Art, be extracted thence; and I may as well suspect, and, if I please, believe, that I had not Money in my Pocket, when I took out some Silver for a necessary Use; as when I see *Nitre* taken out of the Bath, say it was never there.

But the Difficulty will be to prove the Thing; now, I say, a *Sceptick* may doubt whether a Man be a Man, a Brute a Brute, or whether he makes Use of his Voice that asks the Question; but whether he be not the wiser Man that takes these for granted, and not pragmatically contradicts the unanimous Consent of Judicious Writers, is easie to determine.

I confess it burns not as common *Salt-Petre* doth, because it leaves a Calx behind it; but in that more resembles the *Nitre* of the Ancients, * a Pound of which being burnt, will leave Four Ounces of Ashes; *Salt Peter* will leave none.

* Jord. Nat. Bath. & Min. Wat. Chap. 7. p. 53.

Neither doth it huff, nor melt all together in a small Quantity as *Salt-Peter* doth, on the Account of an Allay it receives from the Mixture of another Salt of an *Alkalizate* Taste, with some Bitterness withal, which remains on the Iron-plate after Accension, and is little more than a fourth Part of the Body; wherefore to deny the Being of *Nitre* in the Salt, because 'tis not all so, is as absurd, to make a Linsey-woolsey Comparison, as to affirm, there is no Woollen in that Sort of Vesture where Linnen is; or to say, That a Man that is both Lawyer and Physician, hath nothing of Physick, because he hath something of Law.

But that *Nitre* is there, though not predominant, seems clear by the shooting in *Stiria's*, which is concluded to be the proper Form of that Salt; and although *Tartar*, and perhaps, some other Salts, may somewhat resemble it; yet the Difference is easily perceptible by the Sight, but more by the Taste.

And now I am discoursing of this Matter, I conceive the Author did not hit the Mark, because he did not make the Bath-water shoot, in that he only mentions, *the Salts that remain after Evaporation, which, he says, put on a Coal, burn not as Nitre doth.* But the Shootings so called, in a Figure somewhat Pyramidal, with many *Columelle*, or small Pillars closely united, put on a red-hot Iron Plate, and so burnt, may alter the Case, which I affirm to do, as I mention'd before.

And what is not a little considerable, on the Burning of Six Ounces of the Crystals, in order to the Examination of the remaining
Calx,

Calx, the Nitrous Parts of the Shoots, being many in Number, in a short Time melted, and ran down both Sides of the Iron Plate in a Stream, consonant to *Pliny's* Observation of *Nitre*, which he affirms, * *ingentibus rivulis profuxisse*.

To which I may add, the bitter Taste apparently discovered in the Salt, insomuch as to bring it within the Verge of a suspicious Appearance of a *Sal amarum* (if any such Salt there be distinct from *Nitre*) which Bitterness hath been accounted proper to *Nitre*, and the Waters impregnated therewith, of which the Laborious *Ballius* gives this † Testimony; *Differunt etiam Nitrosæ Aquæ à Salsis, quòd amarorem Nitrosæ sapiunt potius quam Salsuginem, Et quo magis syncerum habent Nitrum eo sunt amariores*. So that the bitter Calx mentioned before, seems, if any, to be the true Calx of *Nitre*, and no small Argument of its Sincerity, although this Taste be not perceptible in the Water, in regard the *Nitre* is much diluted, and though sufficient for the Purpose, not in so great a Proportion there.

Also, for a further Satisfaction, if any Aluminous Parts were contained in the Crystal Shoots, I observ'd, That the Six Ounces mentioned before, (after they had hufft, melted, and ran upon the Iron Plate) were, in little more than One Minute, reduced to somewhat less than Two Ounces of a dead White Calx; which being again dissolved, filtred, and eva-

* (ℚ) † *De Therim.* l. 5. c. 5.

porated, gave me a plain *Alkali* with some remaining Bitterness, which, on the Affusion of any Acid; would ferment, and being put to undergo the *Fire-Ordeal Trial*, would neither melt nor boyl, but crackle and leap.

To make a further Trial, whether what was bitter and suspiciously Nitrous might be separated from the *Alkali*; I dissolved and filtered the same Sal again, and evaporating it, *ad Cuticulam*, it shot partly into a White hoary Down, penetrating, cooling, and bitter, distinct from the *Alkali* with which before it was mix'd, and partly into an inspissated Juice, which I judge to be the *Succus primitivus* of *Nitre*, with the same Qualities; both which put on the Plate, did huff and melt as the former, leaving a small bitter Calx behind it, which, I believe, by frequent Dissolutions, Evaporations, and Coagulations, would huff and melt all off, to the utter Consumption of its whole Body that way, I mean, as far as Nitrous, the *Alkali* shewing itself proportionable in the Calx, after every Trial.

And here I would not be mistaken, as if I pretended to that grand *Arcanum*, the Discovery of the *Nitre* of the Antients; for I am well assured, that the Description of that, is very much different from what I am now discoursing of, being acknowledged by *Pliny*, *Dioscorides*, and others, to be of a Rosy Colour, and almost Purple, which they used sometimes to dye that Colour with (though some White there was also) and came nearer to the Nature of ordinary Salt, whereupon *Dioscorides*, in his 85th Chapter, hath these Words, *Nitre, and the Froth*

Froth of Nitre (or Aphronitrum) have the same Virtues as Salt, and are burnt like that; yet because some Measures may be taken from that, for the better understanding of what is now under the Test, I thought fit in that Regard at present, only to make this bare Mention of it.

Neither can the contrary, I think, be evinced from the Effects; for cooling, penetrating, and purging, are attributed to Nitre, and confessedly in the Waters, the Two former evident in allaying Thirst, abating Inflammations, and Quickness of Passage: The latter, as plain in its Operation, for Nitre as well as Salt, is said both *alvum laxare*, and *urinas ciere*; and *Baccius*, treating of Nitrous Waters, affirms, That they do *vacuare, virtute Nitri, per alvum, & per urinas*. The like may be said of the external Effects by Bathing, which can no way prejudice the Being of Nitre there.

Besides, This way of arguing from the Effects, is but a *à posteriori*, and less significant where there is Matter of Fact, which may be useful in the Dark; but if it thwart with a plain Experiment, must yield; for, *Quid verba audiam, cum videam facta?* And whoever shall undertake a Business of this Nature may consider, That the best Judgment to be made of the Effects, is from a constant Observation of Particulars on the Place, which cannot be conceived to be so well done at a Distance, but must require, besides some Time, a good Attendance, as well as Practice here. But to return;

These

These *Stiria*, or Needles, I observed in the Water of all the Baths, yet in a different Shape and Consistence; for the King's Bath Water, after a full Imbibition of the Salt dissolved, and a strong *Lixivium* thence procured, evaporated *ad Cuticulam*, and set in a cool Place, shot from the Inside of the evaporating Glass into its Cavity, into strong and compacted Needles, with that Strength, that it took some of the Common Salt with it, which appeared in the Nitrous Shoots, something like the Stars in a clear Sky, but White, and in a Cubical Form, in perfect Squares, or *Tessera's*, distinct from the Body of the Nitrous Shoots, with which the Nitre was studded, being impacted into it.

The Cross Bath shot in smaller Needles, but longer and very thin, in great Numbers, directly from the Bottom of the Glass, very close together, but distinct each from other, much like the Finnow, or hairy Excrescence, that oftentimes ariseth from corrupted Matter, which, on the least Violence offered, would break, and not endure any kind of Resistance.

The Hot Bath gave me more Trouble to bring it to shoot, insomuch as, being frustrated in Two or Three Experiments, I had almost concluded there was nothing Nitrous there; but the Thing afterwards succeeding, I had, on a small Quantity of the Salt dissolved, and the *Lixivium* evaporated according to Art, Five or Six single *Stiria's*, bigger and stronger, though not so long, as those I observed in the Water of the Cross Bath, which gave me Satisfaction as to that Bath also, in the particular
Thing

Fig I



Fig II



Fig III



Fig V



Fig IV



Fig IV



Fig VI

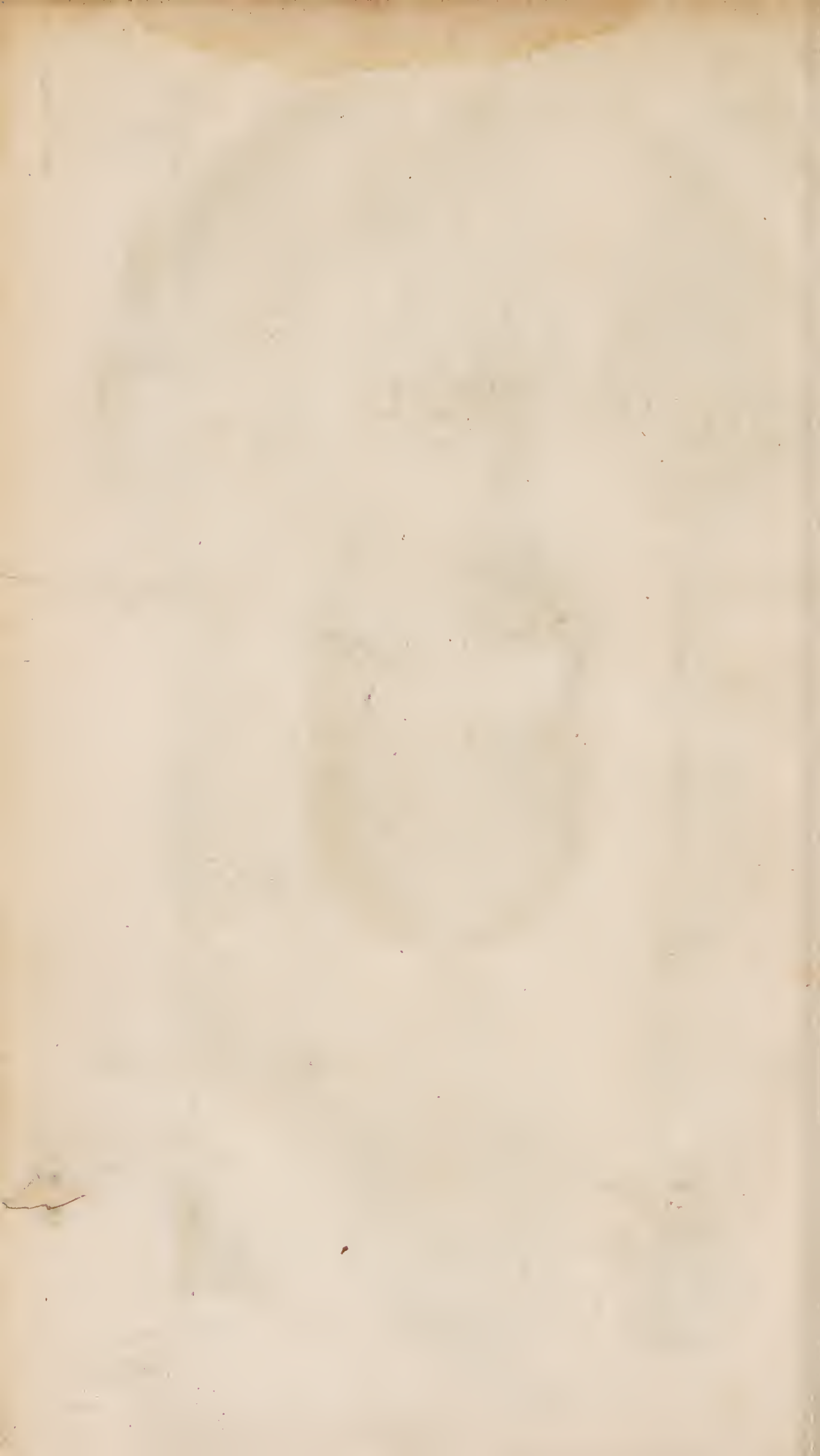


Fig VII



Fig VI





Thing of Nitre now under Debate. Since which Time, on another Experiment, I had as firm and compacted Needles from the Hot Bath, as I had formerly from the King's, both which Baths shoot much alike, and different from the Cross.

I shall not lay any great Strefs on these Observations, in relation to the Difference between the Three Baths mentioned before, in regard it must be a Business of greater Experience, and more exact Observation of many Circumstances, to state that Affair as it ought to be, and is in good Part done in the Miscellaneous Observations hereunto annexed; only this Use I may safely make of them, to confirm what I had before asserted, That there is Nitre dissolved in the Water of all the Baths of *Bath*. And if this be not the Thing that hath hitherto been described under that Name, by the most approved Writers, I presume we may afterwards take it for a Chimerical Notion, that hath no Foundation in any Work of Nature, but owes its Subsistence to a fantastical Brain.

To this may be further added; That the *Liquamen*, or *Oleum per deliquium*, being closely stoppt, and but heated by the Fire, presently, as soon as cold, concretes into a Nitrous Form; so that we need not call in the secret and invisible Assistance of the external Air, to make a Metamorphosis almost as strange as those mentioned by the Poet, when we have clear and unalterable Principles of Nature, and innate Propensities and Disposition in Matter itself, with a Divine Impression, that will serve the Turn.

In

In the Rear of these Philosophical Arguments, I shall offer one (supernumerary) Grammatical, which is this; That the Salt I call Nitrous, either in the Sun, or by Candle-Light, shines and sparkles very much, consonant to the Notation of the Word *Nitrum*, which, probably, may not be so much a *Grecian*, as the great Etymologist, would have it, and derived *ἡμερὰ τὸ νίξεν*, from its scouring and absterging Nature; as a *Latinist*, and so called à *Nitendo*; because it gives a greater Lustre than any other Salt doth.



C H A P. V.

Of SULPHUR in the BATH-WATER.

AS to Sulphur, the next Thing to be insisted on, as contained in the Waters, I conceive, that many that have endeavoured to avoid *Charybdis*, have fallen into *Scylla*, and because the antient Authors have asserted, that Sulphur was undoubtedly concerned in all Baths, they will affirm, there is none in any; but whoever builds a Fabrick on this Foundation, and certainly concludes, that Sulphur is not in the Bath Waters, because it cannot be discovered by Precipitation, I would have a positive Determination on a negative Experiment; forbore, 'till I see Vitriol precipitated in Substance from the King's Bath Water, which is acknowledged to be there. And if I cannot light on an apt Precipitator, which every Way
op-

opposeth the Particles to be so discovered, and have some other Reasons to incline me to the contrary, I should not be so fond of my own Conceit, as to be prevailed upon by a comparative Instance of unslack'd Lime, to wipe my own Nose, and put out my Eyes, which, as far as they can, assure me to the Contrary.

I shall refer the Reader to what is mention'd before, concerning the Colour and Smell, in calcining the Contents of the Bath Water in general; and 'till I shall meet with something that will both burn Blue, and give a fetid Smell, that is not Sulphur, I shall so esteem that, 'till ascertained of the contrary.

I may further add, That the Sulphur is, probably, incorporated with the Salt, as appears by its passing with it into the *Lixivium*, and through Papers in Filtration, and not discoverable but by a strong Fire, by which the Body of the Salt is open'd, and a Solution of the *Continuum* made, in order to Fusion; so that if you do not precipitate both, you can precipitate neither, unless a Separation of the Sulphur from the Salt be made, which, I presume, is not easy to be done, without the Help of Fire, by which the Sulphur is consum'd; so that the comparative Instance of unslack'd Lime is little to the Purpose, where the Sulphur is separated, decocted, and precipitated; here not so, being not apart, but residing in a Salino Sulphureous Salt, a Piece of whose Body, as we now have it, it seems to be.

Moreover, Whereas he collects from the Bath Waters, not tinging Silver Yellow, but rather Black, that there is no Sulphur contain-
ed

ed in the same; I may retort, and that very justly, this as an Argument to assert it: For the proper Colour that Sulphur dissolved gives to Silver, is not so much Yellow as Black, as may be easily discerned by putting any Piece of Silver, but a very little while, into the Decoction of Sulphur made in the Water of unslack'd Lime, which gives as near the Colour of the Silver I have caused to lie some Time near the Springs of the Bath as may be, so that the Difference is not discernable; not to mention, that some Yellowness is observed on the Silver tinged by the Bath.

Neither am I fully satisfied, that the only, or indeed the best, Precipitator of Sulphur is an Acid; for on the Decoction of that Mineral in the Water of quick Lime (the *Lixivium*, though with much Sulphur, not succeeding) and very sudden Change, on the Affusion of Spirit of Vitriol, into a milky and much whiter Consistence, the Liquor afterwards settled, and precipitated not as Sulphur, but Lime-Stone; so that the Sulphur, although it gave a greater fetid Smell, yet was not so apparently precipitated as by Oyl of Tartar in another Glass, which gave the Sulphur in proper Colour precipitated, without a permanent lacteous Opacity. Whereupon I made this Observation, as to the present Experiment, That although Acids do not precipitate of this lapideous Matter alone, yet if in the Embraces, a strong, sulphurous Commixture, they will; and the Lime-Stone is most properly precipitated by an Acid, if Sulphur be decocted with it; whereas the Body of Sulphur, decocted as before,

before, is best precipitated by a fix'd Salt, the Sulphur appearing without Whiteness, in its own Garb, though not so fetid as on the Affusion of an Acid.

It may be also noted, that *S. Clossens*, in his Preparation of *Lac Sulphuris*, in which the Body of Sulphur is open'd with *Calx Vive*, directs the Sulphur to be precipitated with Urine.

The Occasion of this Mistake (seeing he pretends to give the Reason of another, concerning an Experiment of a like Nature) I conceive to be, That the White Matter precipitated on the Affusion of any Acid, was, without much Examination, reputed wholly Sulphurous, as appears from these Words; *For if Sulphur be boyled in the Water of unslack'd Lime, the Water becomes White, not by the Affusion of a fix'd Salt, as before, but of an Acid; so that fix'd Salts may dissolve Sulphur, but not precipitate it.* Whereas the Whiteness ariseth much from the Mixture of the Lime-Stone, as appears by the open Confession of what is precipitated, if standing some Time, filter'd, and brought to the Test by Fire, where the Lime-Stone is discovered, the Sulphur being rather disturb'd than precipitated by the Acid Liquor, which makes it give a greater Fetor, but never kindly precipitates; The other Precipitation with Oyl of Tartar, which here, contrary to its wonted Course, joyns with the Lime-Stone, which it usually precipitates, and opposeth the Sulphur, is very apparent, and Sulphurous beyond Contradiction.

I am not ignorant, that in the Preparation of *Lac Sulphuris* mentioned before, Sulphur also is precipitated by an Acid; but *that fix'd Salts should dissolve Sulphur, but not precipitate it*, is what I said I was not so fully satisfied in. Not to mention, that the Matter precipitated by a fix'd Salt is White on the First Affusion, though the Whiteness be not so permanent, the Sulphur in a short Time precipitating in proper Colour.

Besides, If Sulphur be boyled in the Bath Water, and doth not tinge it with a Yellow Colour, I presume, it cannot thence be argued that there is no Brimstone there, for the Colour of the Water in which Sulphur is dissolved, is not so much Yellow as Lixivate, or Reddish; and therefore *Schroder* gives this Direction for the making that Preparation of Sulphur mentioned before, That after the Sulphur and Tartar are mixed, they ought to boyl, *Donec fere omne Sulphur solutum sit, liquorq; rubens appareat*; though some Addition, I confess, it may have from the Tartar. Yet *Clossens*, in his Way of making that Preparation where there is no Salt of Tartar, but instead of that quick Lime, which gives no such Tincture of it self, hath this Note; *Coque, donec partes tres aquæ sint consumptæ, ruboremque contraxerit instar sanguinis, ex Sulphure dissoluto*.

I therefore think it no ill Advice here, that they that are so much concern'd to give the Reason of the Mistakes of others, would a little mind to rectify their own, and not be an *Argus* Abroad, but a Mole at Home.

I do also acknowledge, that, I believe, that the White Magistery, or impalpable Powder, precipitated from the Bath Water on the Affusion of Salt of Tartar, or any other analogous or agreeable Salt, is not Sulphurous, much less Aluminous; but rather Stony, of a lapideous Substance, the Result of an intimate Commixture with the Body of the Waters, which may have no small Influence on their Fermentation, as may hereafter be more fully consider'd.

And as to what reflects on that famous Practitioner, the Ingenious and Learned Dr. *Willis*, I shall, at present, say no more than this, That observing one so pedantickly drest up in his own Cloaths, he ought not to be affrighted with his own Shape; only this may be further noted, That whereas Dr. *Willis* had desired of me the exacter Trial of that Experiment of decocting Sulphur and Antimony in the Bath Water, I well remember, I returned him something of both, that was precipitated after a double Filtration, and the Decoction performed in a Vessel altogether free from the Season of any fix'd Salt.

Yet I must acknowledge, that what was precipitated, was very inconsiderable to what was decocted, and not so much as to make much Alteration in the Colour of the Water; which may deserve their Consideration who affirm, a Lime-Chalk Stone, or *Lapis calcarius*, to be contained in the Waters, and yet deny them to dissolve Sulphur, and again affirm, that Sulphur is dissolved in the Water of Lime.

The same Alteration of the Water into a turbid, milky Appearance, and the Precipitation by Oyl of Tartar, of an insipid Powder, mentioned before, was also observed in the Spaw at Scarbrough, and Sulphur-Well at Knaresbrough, by William Simpson Doctor in Physick, as appears from several Places in his *Hydrologia Chymica*, and Hydrological Essays, which he there asserts to be Aluminous, and Page 118. of the latter Treatise saith; *By the Addition of Oyl of Tartar this Sulphur Water turns White, and that because it is impregnated with a small Quantity of a Simple, Natural, Alom Salt.* How far Alom is concerned in that Water, I shall not here dispute, but leave it to the Learned Dr. Wittie, whose Concern it is: Only thus much I can say, that the like *Phænomenon* appearing in these Waters, what is thus precipitated here, is not Aluminous, as hath been acknowledged by many eminent Physicians, who have seen some Quantity of the precipitated Powder, and was particularly noted by the ever Honoured Sir Charles Scarbrough, this Summer, here.

But, to prevent any Mis-understanding, I must acknowledge, that this Assertion stands on this Foundation, That the White Powder precipitated by Oyl of Tartar from the Waters, is the same with the finer Sort of what I had in greater Quantities precipitated spontaneously *per decubitum*, on the Evaporation of many Hogsheads of the Water, and is now to be seen, though not altogether so White nor Fine, having undergone many Alterations, which being decocted in Spring Water, the Water filter'd will

will precipitate with Oyl of Tartar, as the Bath Water doth; yet if any one shall think fit to deem this Saline, and, perhaps, Aluminous, he ought to consider, how any Salt can so soon be divested of the essential Property of what is Saline, as to be rendred perfectly insipid, when Saline at first: though I do not absolutely deny, but that we may attribute, though somewhat Catachrestically, the Name of Salt to something not Saline, communicating with it in some other of its Properties.

I know very well, that Alom dissolved in Spring Water, the Water filter'd, and the Salt precipitated with Oyl of Tartar, will be impaired much in its Saline Taste; yet so much of the Sowreness and Stipticity will remain, as will be sufficient to discover its Nature.



C H A P. VI.

Of VITRIOL in the BATH-WATER.

TO pass by the Reason of the Common Artifice of tinging Silver at the Bath, what concerns the Scum, and Sal Armoniack, as of no great Moment; Vitriol is, by him, denied to be in the Crosse and Hot Bath, because Galls beaten, and infused in these Waters, will never turn them Purple nor Black, which is con-

38 *A Discourse of BATH; and Ch. VI.*
fessed, would certainly be, if these Waters had Vitriol in them.

How true this is, a slight Experiment will soon evince, and if the Author had ever made Trial, his Galls, or Sight, must be worse than mine, if a Purple Colour did not appear.

To which may be added, The Experience and Testimony of my Honoured and Learned Friends *Sir Edward Greaves*, and *Dr. Nat. Highmore*, who have both made Trial, and found the Waters turn. With the former of whom, I lately further observed, that when we had been sufficiently satisfied in the turning Colour of the Hot-Bath Pump-Water, with less than Half a Pint of Water, and but Two Grains of Galls, and had thrown away the Water and Galls, in order to the Trial of something else, more of the same Water, though much cooler than when brought at first, being poured into the same Glass, turn'd Colour also, receiving a brisk, light Purple from the remaining Particles of the former Infusion about the Glass, though nothing of the Galls did appear at all.

'Tis also confirm'd by this, That whereas the Leaves of Oak make little or no Alteration in the Water of the King's Bath, the Chips, or Inner Bark of the same, make rather a better Purple in the Water of all the Baths, than the Galls; only the King's Bath tingeth deeper than the other Two, as in all Experiments of this Nature, it appears to do. The like also will happen on the Seeds of Sumach contus'd and infus'd, but with Pomegranate Flowers most apparently; so that the Water of any of the Baths affused hot on that, will presently
turn

turn Purple, though the Colour doth not keep so long in Strength, as that which ariseth from the Oaken Chips.

These Things consider'd, I conceive it no Injury to the King's Bath to allow it a little Vitriol, though manifestly derogatory to the other Two to deny it, since they make their Claim by the same Evidence, and that Judge will hardly free himself from the Censure of Injustice and Partiality, that will not hear a poor Man's Tale, but suffers an honest Cause, that hath weak Lungs, and a weaker Purse, to be lost, on the louder Clamours of more impetunate Addressees.

The Truth of this Experiment being thus far call'd in Question, I am the more afraid of the Certainty of some others; for I remember an Old Story of Mr. *Thief* in the University, that was wont to be very busie in some Booksellers Shops, and entred in the Shop-Book under that Name; whoever, therefore, was taken in the Fact but one Time, was oblig'd to quit the whole Score, on this Account, That he that was really convicted once, might commit the same Thing Five, Ten, or Twenty Times before, and, therefore, be the Man from whom all was requir'd.

The Metallick Mineral, so called, hath nothing Metallick contained in it; and if this be so easily, by the Air, converted into Vitriol, 'tis very strange we have not yet had any Houses of Vitriol, which surely have endur'd the Air long enough to experience a Transmutation.

As for the Sand breaking out with the Springs, in which Vitriol is suppos'd to lye undissolv'd, as was mentioned before; if there were no better Arguments for Vitriol than this, I shall not stick to say, That he that depends on this, builds, at best, but on a Sandy Foundation.

That the Purple Colour appearing from the Mixture of the Sand of the Bath, with the Infusion of Galls, may not arise from the Tincture of Vitriol, seems more than probable by this Experiment: I have formerly declared, That the Sand of the Bath may be so far corroded with an *Acid Menstruum*, as not to ferment any longer, but lye quiet in the Bottom of the Glass, without any Motion at all; now, this Sand on the Affusion of Common Water, gave an excellent Purple, when 'tis not likely that any Thing Saline should remain, after so many Washings and Re-Affusions, as are requisite to reduce the Sand to that Condition. Moreover 'tis considerable, the Infusion was not Acid, nor any way alter'd from its Common Taste. But this Experiment I made but once, and had not an Opportunity of repeating it again.

'Tis likewise more observable, That after some Hours standing, a Purple, Floccous Matter did spontaneously precipitate, upon which, there being a clear Separation, the Water returned to its pristine Colour, and the Floccous Matter subsided in the Bottom of the Glass, which being filter'd *per Chartam*, and examin'd, was perfectly insipid, and not at all Vitrioline.

Besides,

Besides, On the Calcination of Half a Pound of the Sand, when the Crucible was as red, and the Sand as hot as usually it is when the Salts do run, the Sand poured out glowing hot, nothing Saline was observ'd to concrete among it, which it would certainly do, if any fusible Salt were there, as in other Calcinations it appears to do.

I, therefore, rather judge it to proceed from an insipid, but astringent Ochre, such as is mentioned by * *Fallopins*, which lying some Time in the open Air, becomes more sower than when taken out of the Bath, which may occasion the Difference between the Sand newly taken, and that which is kept some Time, the Ochre itself infus'd making the Liquor much blacker after some standing, as is more fully declared in the following Chapter.

* *De Met. & Foss. c. 35. de Ochra.*





C H A P. VII.

*Containing a farther Proof and Illustration
of the former PARTICULARS.*

TO make this a little clearer; 'Tis an easy Experiment to pour warm Water on the Sand, in what Proportion you please, which, if kept some Time, will alter the Water in which it is infused into a Yellowish or Amber Colour: When the Water is impregnated very well, mix some of this with the Infusion of Galls, and presently an Atropurpureous Colour will appear, in which, if you infuse White Paper but a very little while, you will quickly be satisfied what Colour it will tinge. Now, if this Infusion be permitted to cool, the Ochre will precipitate, leaving the Water somewhat yellower than in itself it is, to which it also communicates a harsh Taste, and at last settles on the Top of the Sand, from which it may be separated by Decantation. The contrary happens to the Sand newly taken, in which the Ochre, clogg'd with too much Moisture, cannot shew itself as when older and more dry. So that I see no Reason or Necessity, from this *Phænomenon*, to assert the Existence of Vitriol in the Sand of the Bath, otherwise than as it hath Relation to this astringent Ochre, which, I do believe, receives this tinging Property by the Impression of Vitriol: this being, in all Probability, as is noted elsewhere, the *Terra Vitrioli*,

oli, or Earth, in which the Vitriol is contained before Exhalation; as I conceive, the Marl, or Mud, is the Bed of Sulphur, or the *Terra*, to which that Mineral doth more nearly adhere.

And that 'tis this Yellow Matter that occasions the Alteration, may be further evident from this; That after the first decanting, if the Ochre be poured all off, and warm Water affused on the Sand again, and that Infusion mixed with the Infusion of Galls, no Change of Colour will ensue. To which may be added, That the Ochre itself, kept some Time, and infused in the Decoction of Galls, will, after lying a pretty while, turn that Liquor into a much blacker Appearance.

I shall end this Dispute with the Observation of *one, who affirms, That Artificial Alom will not with Galls strike a Purple Colour, but the Natural Alom with its inbred Ochre, will; ascribing more to the Ochre than the Alom. So that this may be the End of that Controversy about Alom and Galls tinging Water Purple, That Alom, as Alom, doth not tinge, but as in Conjunction with this inbred Ochre, or as Vitrioline; for between Vitriol and Alom there are many Resemblances, and a worthy † Author hath observed, that the Basis of Vitriol is Alom, both these being much alike, but that Vitriol hath a Garb from Copper or Iron, which in the Ochre gives the tinging Quality; the Alom, as distinct from Vitriol, contributing nothing at all.

* *D. Simpson.* † *Jord. Nat. Bath. chap. 7. p. 52.*
If

If any shall affirm this Ochre to be Vitrioline, I have not deny'd it, having formerly supposed it might be *Terra Vitrioli*; but what I here question is, whether any Vitrioline Saline Body, different from the Ochre, be contained in the Sand, or can lye undissolved there.

'Tis very remarkable what is said, That if the Sand of the Bath, impregnated with an Acid Liquor, be put into the Infusion of Galls, the Liquor acquires an Atropurpureous Colour; and no wonder, since the Acid Liquor may do much alone, as may be seen in the Mixture of Vinegar, with the Decoction or Infusion of Galls, which supplying in some measure the Place of Vitriol, by a kind of Analogy, inclines the Infusion to an Inky Complexion.

And as for the Metallick Mineral contained in the Sand, which on the Affusion and Corrosion of an *Acid Menstruum*, will in part be converted into Vitriol; I have said before, that 'tis nothing else but a Common Freestone, a Mineral, I confess, but how far Metallick, I leave to the Judgment of the Men of that Art.

For a partial Satisfaction in this Thing; If the sharpest Vinegar be poured on the Sand in one Glass, and on Freestone in another, the same Fermentation will appear for the present, and the same blueish Colour of the Infusion afterwards upon Corrosion; so that it much resembles the Colour and Smell of the saturated Liquor, on the Affusion of Vinegar upon the Filings of Iron. But whether this be a sufficient Argument to dub it Metallick, I shall be better satisfied, when I am convinced of this,
That

That Truth hath never suffered by mere Resemblances.

But that it may appear, that I desire to proceed in this Affair with all Ingenuity and Freedom from Animosity, unless what will seem necessary to discover Truth: I shall here recite a Passage out of Dr. *Wittie's* Answer to *Hydrologia Chymica*, leaving how far it may be applicable to the Saline *Stiria's*, mentioned before, to the judicious Reader, and further Observation.

The Candid Doctor, *pag. 63.* among other Preparations out of the Minerals of the Spaw at *Scarborough*, made by Mr. *Samuel Johnston*, a Physician at *Beverly*, and by him communicated to the Doctor, makes mention of an *Essential Salt*, which Mr. *Johnston* calls *Anomalous*, or *sui generis*, as differing much from the *Facitious* or *Natural Kinds* of *Alom*, *Vitriol*, or *Nitre*, though in some Properties it agree with each of them.

The Reason of this Scruple, he adds, is this, which *Paracellus* hath clearly made out, That here they are not corporally, but *percolated, not perfect in their several Kinds, but in suo primitivo, not single, but all mixed together, which as yet I could never attain to separate. And, therefore, this Salt is nothing so Acid as *Vitriol*, nor Stiptick as *Alom*, nor Inflammable as *Nitre*, notwithstanding it doth shoot in *Stiria's*.

* I suppose the Doctor doth not mean, that what is percolated hath no Body or Substance, but only, that 'tis more refin'd.

I'll only add this, That they are all here, though in fractis, imminutis, & debilitatis viribus, and the Virtues of the Waters to be judged from them all.

To which I shall only subjoyn this Remark, That the Nitre, undoubtedly here, being allay'd with the Mixture of some other Salts, could not be expected to do altogether as sincere Nitre doth; and the best way, I conceive, to discover the distinct Natures in this *Compositum*, had been to have attempted a Separation by frequent Calcinations, Dissolutions, and Coagulations, which, if done, I much admire the several Salts did not appear in proper Form, as they did in the Anomalous Salt of these Waters, subjected to the same way of Trial: And then I somewhat question, whether Alom would have deserved so much Favour, as the Doctor's good Nature hath allowed it here.

I shall forbear, at present, to trace this Author, or follow his Track any further, as also to examine his Opinion concerning the Cause of the Heat of the Bath-Waters, 'till my Treatise in the same Language he hath written in, be presented to the World; only thus much I shall say now, That, I conceive, an *Hypothesis* founded, though not on a subterranean Fire, yet on Things under Ground, may probably give more Satisfaction than some Airy Notions, considering especially, that nothing external to the Body of the Earth, can in Reason be supposed capable of reaching these Waters, but rather somewhat included in its own Bowels, which may be near at Hand, of an active, even, and durable Nature; when, to say no more,
nothing

nothing is more variable than the Air, nor unconstant than Rain.

I shall also distinguish the whole Bulk of what relates to the Body of the Waters, into Things Saline, and *non-Saline*: The former I shall endeavour to evince to be *Nitre*, *Common-Salt*, and *Vitriol*; the latter, to be partly unctuous, as *Bitumen* and *Sulphur*; partly gritty, as *Freestone*; and partly earthy, as *Marl* and *Ochre*. I shall likewise examine what Pretences Alom can make, and further discourse of the Difference between that and *Vitriol*: And lastly, enquire into the Competition of *Lapis Calcarius* with *Freestone*; so that the Bath-Water will have Relation to, or comprehend in its largest Extent, Eight distinct Substances, at least according to my Observations, which will be the Business, God willing, of the First Book of my Treatise, *De Thermis Bathoniensibus*, viz. *de Aquarum Principiis, una cum earundem appendiculis, nimirum, Arena, sive Sabulo, Luto, & supernatante Uligine, sive Spumâ*. The Second Book shall treat *De Aquarum Calore*. The Third *De usu Thermarum; ubi de modo Balneandi; de Aquarum potatione; de Antliatione jam in usu loco dulciæ, aut Stillicidii Veterum; de usu Luti, &c.* The Fourth and last Book, I intend, shall be *De Aquarum Virtutibus, & Nocumentis, observationibus quibusdam rarioribus; quantum res ipsa patitur confirmatis*: Which Emoluments and Inconveniencies shall be both evidently deduced from the precedent Principles, the one recommended, the other provided against. But this will require some Time; for I am willing
to

to prevent that Fault in my self, which I find in another, and would not have it justly said of me,
Canis festinans cæcos parit Catulos.



C H A P. VIII.

Being a LETTER formerly written to
Sir EDWARD GREAVES.

I Know you (as well as other ingenious and inquisitive Persons) are somewhat concern'd, and desirous to understand, what Success my late Enquiries have had into one of the Grand Mysteries of Nature; I mean, the BATHS of this City: considering especially, that you were pleased the last Summer, to afford me the Honour of your Company and particular Acquaintance, and to express a more than ordinary Desire of my proceeding in this Thing.

Concerning which, I must tell you, That as I have not been wanting, either to Pains or Pay, in my Proceedings hitherto; so I have had the good Hap (which hath been my Encouragement) to meet with many considerable Discoveries. And though the main Body of the Matter collected touching this Affair, be not yet ripe for the Launcet, but will require a longer Time to digest; yet some Observations I shall now communicate, which give a little Satis;

Satisfaction to an earnest Desire, and make, in some Measure, appear, that we have been lame and defective hitherto in a rational Account and true Understanding of the Nature of these Waters.

It hath been indeed the ill Fortune of these Baths, (which I may truly say are as good if not better than any Baths in the World) to lie a long time in Obscurity, and not so much as to be mentioned among the Baths of *Europe* by any foreign Writer, 'till about the Year 1570. when that Excellent Person Sir *Edward Carne*, sent Ambassadour by Queen *Elizabeth* to Pope *Julius* the Third, and *Paul* the Fourth, made some Relation of them to that famous Writer *Andreas Baccius*, then at *Rome*, and writing his elaborate Book *de Thermis*, into which he hath inserted them, upon his Relation, *Lib. 4. Cap. 13.* (though somewhat improperly) among sulphurous Baths.

About the same Time also one *John Jones*, an honest *Cambro-Briton*, frequenting the Baths for Practice, composed a little Treatise of them, which he calls *Bath's Aid*, in which are some Things not contemptible, though in a plain Country Dress, and which might satisfy and gratify the Appetite of those Times, which fed more heartily and healthily too, on good Beef and Bag-Pudding, than we do now upon Kickshaws and Haut-gusts; yet nothing of the true Nature is there discovered, only, as almost in all former Writers of Baths, chiefly Catholick, a strong Stench of Sulphur, and a great ado about a subterranean Fire, a fit Resemblance of Hell, at least of Purgatory.

Our Country-man Dr. *William Turner*, I confess, was more particularly concern'd to give a better Account, than I find is done in his Discourse of *English, German, and Italian Baths*: And whether want of Opportunity, or any other Impediment was the Cause, I know not; but I find that at this Stay they stood till the Famous Dr. *Jorden* took Pen in Hand, about the Year 1630. To whom I thought fit to make some Additions, at my first Entrance on this Place, some five Years since. And although that Learned and Candid Physician had chiefly and more especially an Intent to enlarge the Knowledge of our Baths in *Somersetshire*, (as he declares to my Lord *Cottington*, in his Dedicatory Epistle) and hath performed more than any Man before him, yet what was first in Intention, was last in Execution; and how small a part of that Treatise is spent upon this Subject, how short he is in some material Points, and what Objections may be framed against his Opinion, I may some time or other, with due Respect, more largely treat of; and for the present shall here, with good *Sem* and *Japhet*, cast a Garment over the Nakedness of this my Father.

What hath been done since (except in some particular Pieces of other Tracts, to the Authors of which the Baths are also indebted for their Kindness and good Will) is not worth the mentioning. The old Saying's true, *Little Dogs must piss*, and what is writ upon an Ale-bench claims the greater Affinity to the Pipe and the Candle; especially if the best Wine at the Feast (which is usually kept 'till last)

Ch.VIII. *the HOT-WATERS there.* 51

be but a silly Story of *Tom Coriat*, and an old *Taunton* Ballad new vampt, abusing the dead Ghosts of *Lud*, *Hudibras* and *Bladud*, with a Nonsensico-Pragmatical, Anticruzado-Orientado-Rhodomontado-Untruth-Le Grand, which we Westerly Moderns, call a *GROTE L Y E*, into the Bargain. A pretty Artifice in Rhetorick, to cry a Thing up, and besinear and shed plentifully on the Founder Ordure, both *Humane* and *Belluine*.

*Rode, Caper, vitem, tamen hic cum stabis ad aras
In tua quod fundi cornua possit, erit.*

Goat, Bark the Vine; yet Juice enough will rise
To drench thy Head, when made a Sacrifice.

I have industriously omitted *Dr. Johnson*, *Dr. Venner*, and some others, in regard it would be improper here to write more Historically. I shall therefore now let you know not so much what hath been done by others, as what further Discoveries have been made by my Endeavours, assisted by the careful Pains of *Mr. Henry Moor* an expert Apothecary and Chymist of this City.

And here at first I cannot but take Notice how that Opinion hath so much prevailed as to be accounted Orthodox, and not only received by Tradition as certain, but Printed as such, that the Body of the Waters is so jejune and empty, as to afford little or nothing at all, whereby to make a Discovery of its Nature, and that what impregnates the Baths is not substantially, materially or corporally

F 3

there,

there, but potentially, virtually and formally, or to use the Author's own Words, * *δυνάμει μάλλον ἢ ἐνεργείᾳ*, with much more canting after this Manner, in a small Discourse in *Latin* written by an itinerant Exotick; when as a slight Operation will soon evince it, though white and transparent of itself, being taken immediately from the Pump, to contain a considerable Quantity of a dusky, gritty, and saline Matter, with many transparent Particles intermixed with it, to the Proportion, (as near as I can calculate) of two Drams to a Gallon of the Water. And this I can ascertain, having had several Ounces of it done in Earth, Iron, Bell metal, and Glass, and have at this Time three or four Ounces by me, untoucht, beside what I have made Use of in other Experiments.

But the Thing I shall more peculiarly insist on, at this present, is, That by God's Blessing on my industrious Search, I suppose I have lighted on the main Constituent of the Virtues of the Bath, in which chiefly resides what Benefit can be expected from the Use of these Waters, and lodgeth in a saline Substance, in a very small Proportion to the Body of the Waters; so that as they are now, not much more than Forty Grains is contained in a Gallon, insomuch that this little Soul, as I may so term it, is almost lost in so gigantick a Body, and cannot animate it with that Vigour and

* Carolus Claromont *de Aer. Aq. & Loc. T. A.*
pag. 32.

Activity as may be rationally expected, were a greater Quantity of the Salt contained in a less Proportion of the Water. The Remainder, which is not saline, being, as I judge, two Parts of three of the Bulk of the Contents, is partly whitish, gritty, and of a lapideous Nature, concreting of itself, into a stony Consistence not easily dissolvable; partly more Light and Dirty, resembling Clay, or Marle, and discovers itself by an apparent Separation from the saline and gritty Part mentioned before.

Now the chief Virtue of the Bath, as I conceive, consisting in the Salts, which appear by undeniable Experiments, to be Nitrous, and I believe Vitrioline (Bitumen and Sulphur being not primarily, as these Salts, but secondarily concern'd) and no small Proportion of other Things blended with it, the best way to make it most serviceable I conceived to be, to free it from those Incumbrances and Allays it hath from the other Ingredients, and prepare it as exactly as may be performed by Art, for the Benefit of those especially who are willing to drink the Waters with greater Success in a lesser Quantity; which they may now do, and have more of the Virtue of the Waters in a Quart, three Pints, or a Pottle, than they formerly had in two or three Gallons, did they drink so much; which will be, besides other Conveniencies, a great Relief to the Stomach, which certainly must be relaxed, and the Tone of it injured by that vast Quantity of Water which is usually taken, diluting its Ferment over-much, and distending its

Membranes beyond all the Bounds of a reasonable Capacity.

Besides, What is separated only by an artificial Extraction will better unite again, and mix with the Waters, as much more familiar than the extraneous Salts of *Sal Prunella*, Cream of Tartar, &c. which are usually dissolved and drunk with the Waters; so that a great Part of the Operation may be ascribed to that; and the Waters being, as we say, between two Stools, that of itself, and the dissolvent in it, hath not attained to that Degree of Reputation as they have deserved, and may be procured with much more Advantage, if nothing but the same be spent upon the same; a way of Improvement altogether equally beneficial to Fluids and Solids, to the Wet as to the Dry.

Again, Whereas it is a Custom here, as in all other Places of the like Nature, when Persons are not willing, or have not Conveniencies to come to the Fountain Head, to send for the Waters to the Places of their Residence, not thinking it much material whether *Mahomet* go to the Mountain, or the Mountain come to him, whereby the Virtue of the Waters is much impaired, if not stopped and sealed up with very great Care; this Defect may in good Part be supplied by the Addition of a Quantity of the same Ingredients, which may repair the Loss that hath been sustained by Evaporation in the Carriage, or other Way of Damage, and restore it again, as near as may be, to its pristine Virtue, and genuine Advantage. Not to mention, that if Need require,
and

and the poorer Sort cannot procure or pay the Freight for the Waters, they may take a shorter Course, by mixing the Salt, which they may have at reasonable Rates, with Spring-Water, brought to a proportionable Degree of Heat at Home, and expect more Advantage, for ought I know, than those that drink the Waters themselves at so great a Distance.

And because I am now fallen on this Subject, I shall crave Leave to remind you of what you well enough understand already, that not only *Dulcius* but *Utilius ex ipso Fonte*, &c. and Waters especially impregnated with volatile Spirits, such as most acid are, and peculiarly Vitrioline, to avoid the Inconvenience and Expence, not so much of Money as Virtue, in the Carriage, must be drank on the Place where they are, which in some kind resembling Children, that must live by Sucking, if once removed from their Mother, or Nurse, by Degrees dwindle away, and at last die.

It is observable in these Waters, that with four Grains of Galls injected into a Pint Glass of Water, or the Water poured on it, it immediately turns of a purple Colour, which in short Time after, as the Water cools, abates much of its Vividity, and becomes more faint: if the Waters be suffered to cool, and be quite cold before the Galls are injected; but little Alteration happens upon a much greater Proportion of Galls super-added, and (what is more remarkable) if the Water, which is permitted to cool, be recruited by the Fire, and the same Tryal reiterated, it offers no greater Satis-

faction in change of Colour, than the second Experiment. Consonant to what *Andreas Baccius* hath formerly observ'd, who in his second Book *de Thermis*, Cap. 10 Page 69. hath these Words, *Nulla Balnei Aqua, eodem cum successu ac laude bibitur longe exportata, quo ad fontem proprium; maxima enim parte ex ipso fonte hausta ac delata, amittunt omnem virtutem; multa non servantur per hyemem, diluta pluviis; & quæ utcumque servantur delata à propriis fonticulis, fieri non potest, quin amittant, cum calore suo Minerali, vivificos illos Spiritus in quibus omnis Fuvamenti vis consistit, quæ semel amissa, nullo postea extrinseco calore restituitur. Quod est valde notandum.*

I have been the more particular in this, in regard it is a very useful and practical Discovery, and may procure more real Advantage to Mankind, than the vain and unattainable Attempts of the Philosophers Stone, making Glass malleable, and the Quadrature of a Circle.

Some other Observations I shall also mention, of a less Magnitude, and more contracted Circumference, as the Dying of the Bath-guides Skins, the Bather's Linnen, and the Stones in the Bottom of the Bath, of a yellow Colour, and the Eating out of the Iron Rings of the Bath, the Iron Bars of the Windows about the Bath, and any Iron infused in it; insomuch as I have now by me a Gad of Iron by Accident taken up among the Stones of the King's Bath, so much eaten out, and digested by the Ostrich Stomach of these Waters, that, the Sweetness extracted, what remains resem-

resembles very much a Honey-comb, a deep Perforation in many Places being attempted, and the whole Gad itself reduced to a Thing very much like a Sponge.

The first, *viz.* the Tincture, I have discovered to arise from an Ochre, with which the Bath abounds, and hath afforded me a considerable Quantity, so that now I have near a Pound by me, and with an Infusion of that in warm Water, tinge Stones as exactly of the Bath Colour, that they are not discernable one from another. It is further observable, that the nearer the Place of Ebullition, where the Springs arise, the deeper and finer is the Yellow Colour, so that in some Places, about the Cross in the King's Bath, and at the Head of the great Spring, at the Southwest Corner thereof, it is almost made a natural Paint, being laboured together by the Working of the Springs, and a continual Succession of new Matter coming on, free from those Impurities it contracts in other Places, which make it distinguishable into two or three Sorts, according to its Mixtures with, or Freedom from, more adulterating Matter. The Clouts also and woollen Rags, which the Guides use to stop the Gouts withal, besides the Walls, Slip-doors and Posts, when the Bath is kept in a considerable Time, as in the Winter Season it useth to be, are all very much tinged with this yellow Substance, and if at any Time they chance to lie unwash'd or not thrown away, they send out so ungrateful a Scent, that a Man had rather smell to a Carnation, Rose, Violet, or a Pomander, than be within the
Wind

of so unwelcome a Smell, it being the greatest Policy to get the Weather-gage in this Encounter. The same Thing I have experienced in Vessels at Home, where after it had stood some Time in a common Infusion of warm Water, I have the same Reverence for that as Pictures, and do aver it to be true, *E longinquo reverentia major.*

One Thing more is to be noted before I leave this Particular, that although so much of this yellow Matter is continually bred, with which the neighbouring Ground is sufficiently replenish'd, as I have found by Digging in some Places not far distant, yet nothing of that Colour is discovered in the Contents, a probable Argument it either evaporates, (to which I am more inclin'd, in regard I find it much more copious where the Steam of the Bath meets with any Resistance) or else it may be, which is less probable, turns Colour by the Fire in Evaporation that Way; less probable, I say, because for further Satisfaction, I have decocted the Ochre more than once, and find rather that it gets than loses in its Colour.

The Reason of this I conceive to be, That this Ochre being probably, as I have elsewhere discours'd, the Vehicle of Vitriol, on its Separation from it in the open Air, precipitates to the Bottom, and tinges the Stones with a yellow Colour, leaving the Body of the Waters through which it passes, much unconcern'd; which may be one Reason, why the Water of the open Bath tingeth not with Galls, as I have observ'd, like that from the Pumps, though the Avolation of Spirits may not perhaps be altogether

together ridiculous, considering especially, that the Water from the Pump when cold, will lose its tinging Property, though nothing be observ'd to be precipitated. And that some of this yellow Matter is contained in the Water, though with some Difficulty observed, doth appear from the Fifty-second Observation.

The greenish Colour ariseth from another Cause, which I conceive may be the Effect either of the Salt or Vitriol, or both; the former making that Colour in Meats long in Salt, and the latter, if from green Copperas, may easily be understood.

The Eating out of the Iron I conceive, must proceed from something Corrosive, and 'till any one can assure me 'tis something else, I shall judge it to be Vitriol, though the Salt also may contribute not a little. And that it may appear not to be caused by the bare Steam, as Rust is bred upon Pothooks and Cotterels, besides the Difficulty to conceive how the Steam should operate under Water, as in the Case of the Gad before mentioned, I made a *Lixivium* of the Contents of the Water, and in it infused Iron but a very small Time, and found it to do the same as in the Bath itself, considering the Time of Infusion; and the very Knives and Spatules I put in to stir some Residence in the Bottom, were, almost as soon as dry, crusted over and defended with a rusty Coat.

I have other Arguments I suppose will contribute something more to the Confirmation of this Opinion; as that with the Help of the Sand of the Bath, with Water and Galls, I
made

made good Writing Ink, which in a short Time comes to be very legible; but the Infusion of the Contents in Common Water, or the *Lixivium* thereof, with an Addition of an inconsiderable Proportion of the Decoction of Galls, makes it tolerably legible on the first Commixture, only the first, *viz.* that made with Sand, casting an Eye of decayed Red from a Mixture of Ochre contained in the same. Neither is it altogether to be slighted, that the Water itself hath been heretofore used by the best Writing Masters for the making of Ink, who observing by their Experience, that Ink made with Bath Water, and the other usual Ingredients, had a better Colour, and was more lasting than any other, preferred this Water before any other for this Use, as I have been informed by some credible Persons. Also having not long since Occasion to pour warm Water on the Contents of the Bath, in Order to the making a *Lixivium*, some of the Water happened by an Accident to fall on a Basil-skin I sometimes use, and immediately turned the Red into a Black more than the Breadth of an ordinary Hand, with as much Facility as any Carriers Liquor. Alom I know will do the like, but I find no Necessity to assert that, which, had it any Thing to do here, must make the Water much rougher, whiter and sower, than I find it to be. To which I may add, that many judicious Persons, my Patients, and some intelligent and eminent Physicians also, have assured me, that they have perfectly discerned by the Taste, a Mixture of Vitriol, and that I need not doubt, but that was one principal ingredi-

Ingredient. 'Tis also not very inconsiderable, that the Bath-Water alone will coagulate Milk, though not after the usual Way of making a Posset; for after the Milk and Water are put together, it must boyl pretty smartly, else the Curd will not rise. I may likewise subjoyn as a further Probability, that on the relenting of the Salt extracted into an Oyl *per Deliquium*, there is a very sharp Stiptick and Vitrioline Taste perceived in the gross *Deliquium*, as also in the clear Oyl, and the Salt itself; not to mention its shooting into Glebes, of which I have some small Assurances by Trials I have made, not yet sufficiently satisfactory; and therefore I dismiss this Part for the present, with the greatest Probability, 'till a further Inquiry shall make me positive.

But as to Nitre, there can be no Question made about that, I suppose; for besides the quick, acrimonious, cooling, and nauseous Taste, most apparently discoverable, both in the infused Contents, the Salt and Oyl (the latter of which, *viz.* the nauseous Taste, I take more particular Notice of, in regard it is most predominant, and assigned by *Fallopins* to Nitre, and the Waters impregnated with it, which, he says, sometimes do *subvertere stomachum, & facere nauseam, de Therm. Aq. & Met. cap. 9.* besides, I say, these probable Conjectures) what will set it beyond all Contradiction, is, that it hath the true Characteristick of Nitre, and shoots in Needles, of which I have now lately shot above Twenty *Stiria*.

I the rather mention this, in regard it hath been my good hap to bring this Thing to Perfection and Autoptical Demonstration, which hath been in vain attempted by some industrious Persons; not that I am, in the least, willing to arrogate to myself, or derogate from them, more than what is fitting; but to confirm this Truth, that there are some *Mollia tempora fandi*; some Opportunities, when Nature will give willing Audience, without much Ceremony or Ado, confessing more by fair Persuasions, than Racks and Torments, and greater Importunity. And that we ought to be very cautious how we affirm a Thing not to be, upon the Failure of a single, or some repeated Experiments.

In fine, Lest I should too much exceed the Bounds of a Letter, what concerns the Cause of the Heat of the Waters, I say little of here, only tell you, That when I shall come to discourse of that Subject, of which I intend, God willing, a large Disquisition in another Language, I believe I shall find myself obliged not so much to depend on a Subterranean Fire, as to expect greater Satisfaction from another Hypothesis.

Many more Experiments I have made upon the Sand, Scum, and Mud of the Bath, with some Observations drawn from the *Natura Loci*, or Ground hereabouts; but, I fear, I have been too tedious already, and, therefore, without further Ceremony, shall release you out of this Purgatory, with the Subscription of,

Honoured Sir,

Your most Faithful, &c.

C H A P.



C H A P. IX.

Of the Antiquity of the BATHS and CITY.

AND now it may be expected I should say something concerning the Antiquity of the Baths and City, which I the rather do here, in regard since my writing any thing of this Kind heretofore, in many Particulars I have met with better Information.

Not to mention any thing of * *Bladud*, and the *British* Histories, as, at best, uncertain, I shall first take Notice of the Opinion of those that ascribe their Discovery to *Julius Caesar* Fifty Years, or thereabouts, before Christ, which the Learned Antiquary † *Mr. Camden* thinks not so probable, because *Solinus*, who lived in the Time of *Titus Vespasian*, 130 Years after, and 83 (rather 81) Years after Christ, was the first of the *Romans* that made mention of them. But if it be uncertain when *Solinus* lived, and most likely after the Year 300, as my Judicious Friend the Reverend and Learned Dean of * *Bangor* hath observ'd, then the Antiquity reaches not so high.

To which may be added most assuredly, That *Julius Caesar* came not so far up into the Land:

* *Gul. Malm.* † *Br. p. 234.* * *Dr. W. Lloyd.*

For whatever some Poets and Poetical Historians, that lived a Thousand Years after him, may deliver, certain it is, that *Julius Cæsar* made not so great a Conquest here as they made for him; whence *Tacitus* writes, That he discover'd only, not deliver'd unto the Romans, Britain. His Words in the Life of *Julius Agricola* are these; *Primus omnium D. Julius cum exercitu Britanniam ingressus, quanquam prospera pugna terruerit incolas, ac littore potitus sit, potest videri ostendisse posteris, non tradidisse.* Horace also calls the Briton, before *Augustus*, Untouch'd;

*Intactus aut * Britannus ut descenderet
Sacra Catenatus via.*

Nor yet, th'unconquer'd Briton to convey
Captiv'd, in Chains, down Sacred way.

And *Cambden* saith, That 'tis so far from being true what *Paterculus* reports, *Bis penetrata Britannia à Cæsare*, That *Cæsar* passed twice through Britain, or twice a great way into Britain, which is all can well be understood by those Words of that Historian, that he scarce made Entry into it. For many Years after this Entrance of *Cæsar*, the Inhabitants of this Island were left to the free Government of their own Kings, and used their own Laws.

* *Lib. Epod. Od. 7.*

Another Learned Antiquary, treating of * *Cæsar's Conquest* here, is of Opinion, that it extended no farther than Kent, some Part of *Sussex*, *Surrey*, *Middlesex*, and *Essex*, and perhaps, as the Learned *Dr. Lloyd* hath further noted, into the Edge of *Berks*, *Oxford*, and *Bucks*; for he † mentions the *Bibroci* and *Anealites*, which *Cambden* with good Probability places there. The Words of *Twine* are these; *Mibi quidem videtur universum Cantium, Suffexiæ vicina loca, & Suthreiam, quæ Regni nomine, itemque Middlesexiam & Essexiam, qui hodiè à Doctorem vulgo, Trinobantum appellatione intelliguntur, legionibus suis invasisse; nec, si ad plures penetrasset, aut in gratiam recepisset, puto præterire silentio valuisse. Reliqui vero populi manus quidem dederunt, quorum tamen regiones nunquam à Cæsare conspectæ sunt. To me, indeed, it seemeth probable, that Julius Cæsar, with the Soldiers under his Command, conquered all Kent, the Neighbouring Parts of *Sussex* and *Surrey*, called by the Name of *Regnum*, also *Middlesex* and *Essex*, which the Learned call *Trinobants*; neither do I believe, but that, if he had conquered, or made Peace with more, he would have mentioned them: Some other Inhabitants nearest to Danger yielded, whose Country Cæsar never saw.*

The Saxon Names of *Bathancester*, *Hat Bathan*, and *Akmanchester*, are of later Date, the Saxons not arriving here 'till the Time of *Theodosius* the Younger, about the Year of Christ,

* *Twin. Comm. p. 146, 147.* † *De Bell. Gall. lib. 5.*

according to the most probable Account of Venerable * *Bede*, 449. Nay, the later Name of *Akmanchester* was not given 'till some few Years after the Year of Christ 577; when from a mean Condition, to which this City was then reduced by War, it again recovered Strength and great Dignity, and from the great Concourſe of Diseaſed People that came for Cure, was called *Akmanchester*, or, The City of Sickly Folks.

Anno 575, ſaith the *Saxon Chronicle*, the City of Bath, as alſo Glouceſter and Ciceter, were taken by Cuthwin and Ceaulin the Saxons, from the Britons, after the Slaughter of Three Britiſh Kings, Commail, Condidan, and Farinmail, that Year in a Battle at Deorham.

Neither can their Antiquity be much more advanced by the *ῥεστα δειψα*, or Hot Waters in *Ptolomy*, who flouriſh'd about *Anno Chriſti* 161, being alſo the Firſt Year of the Reign of the Emperor *Antoninus*; *Aqua Solis*, or Waters of the Sun of *Antonine*, or *Badiza* of *Stephanus*, who lived *Anno Dom.* 540. But what may ſeem to ſome of greater Conſequence are, the Britiſh Names of *Pr Ennaint Twymyn*, as *Cambden* hath it, or rather *Caer Ennaint*, the City of Cyntment, from the Diseaſed People that came hither for Relief, *Ennaint* in *Welſh* ſignifying † *Unguentum*: or elſe, *Caer yn nant Twymyn*, the City in the warm Vale; whence *Briſtol* was antiently called, *Caer Oder yn*

* *Hiſt. Eccl. l. 1. c. 15.*

† *H. Lloyd. Fragm. deſcr. Brit. p. 16.*

nant Badon, the City Oder in the Vale of Bath. *Caer Baddon*, or *Bathon*; and *Caer Paladdur*, the City of *Pallas*, or *Minerva's Water*; especially since *Solinus* affirms *Minerva* to have been the Patroness of these Baths, if of them he writes, as most probable, in these Words, Chap. 25. where speaking of *Britain*, he saith, *In quo spatio magna & multa flumina sunt, fontesque calidi opiparo exculpti apparatu ad usus mortalium; quibus fontibus præsul est Minervæ numen in cujus ade perpetui ignes nunquam cænesunt in favillas, sed ubi ignis tabuit, vertitur in globos saxeos; i. e. In which Space are many great Rivers, and Hot Springs, very curiously adorned and kept for Mens Use, the Patroness of which is the Goddess Minerva, in whose Temple perpetual Fires never turn to Ashes, but when the Heat is over, become round Lumps of Stone.* There being also a Tradition here, that there was formerly a Temple dedicated to *Minerva*, where the Church of *St. Peter and Paul*, commonly called the *Abbey-Church*, now stands. I say, if *Solinus* writes of them, because the Baths of *Buck-Stones* in *Darbyshire* are likewise in *Britain*, and were formerly much frequented.

I know very well, that *Mons Palader* was a Name amongst the *Britons* for *Shaftsbury*, * *Paladur* in that Language signifying a Shaft; but *Ponticus Virunnius*, who lived 1500 Years since Christ, corruptly calls it *Paladur*; *Rudhudribras condidit oppidum Montis Paladur quod nunc Sefronia dicitur*; and therefore gave Oc-

* *Mr. Tho. Wilkins; Prebend of Llandaffe.*

casion to some inconsiderate Persons to confound it with *Bath*: Now, although any one that knows a Mountain from a Plain, may see the Difference, yet I must be so impertinent here as to say, That I see no Reason to the contrary but that *Palladdur* may be Two Words, and rendred *Minerva's Water*; *DM* being the Word for Water in *Welsh*, and *Mons Palader*, *Paladr*, or *Baladr*, as it should be written, and *Caer Palladdur*, to be Two distinct Places; the former *Shaftsbury*, the latter *Bath*: However, if *Cambden* be mistaken, and myself also, following his Authority, we are both under the Correction of those that have better Converse with the *British* Writers.

I shall only add, That *Ptolomy* reckons *Therma* and *Ischalis* as Cities of the *Belgæ*, whereof *Ischalis*, now *Ilchester*, he places in 16 Degrees, 40 Minutes of Longitude; 53 Degrees, 30 Minutes of Latitude; and the other City *Therma*, or *Bath*, in 17 Degrees, 20 Minutes of Longitude, and 53 Degrees, 40 Minutes of Latitude.

Antoninus his Itinerary hath *Aquæ Solis* in the Way between *Venta Silurum*, now *Caer Guent*, and *Verlucio*, now *Warminster*: From *Venta* to the Ferry over *Severn*, called *Trajectum*, he makes Six Miles; from that Ferry to *Aquæ Solis*, Eighteen Miles; and from *Aquæ Solis* to *Verlucio*, Sixteen Miles. This may serve to prove, that *Therma* in *Ptolomy*, and *Aquæ Solis* in *Antonine*, were meant of *Bath*.

Let this then suffice for the Antiquity of the Waters, That we have a Tradition, and the Authority too of some suspected Writers, that
the

the Baths were discovered Eight hundred and odd Years before Christ: That not long after Christ, we have undoubted Mention made of them in credible Authors, and that, doubtless, they were known, and made Use of too, long before any Author writ of them; so that to trace their Original, is to unravel the Creation, and to make Enquiry for their Commencement little different than to seek after the Head of Nile.

To give but a Taste of the Philosophy of the Times, but little more than Two hundred Years ago, in reference to these Waters, I shall mention a Part of the Rhiming History of Unfortunate Princes, composed by *John Boccace*, who lived about A. D. 1450, and translated by *Dan. Lidgate*, where, Fol. 31. *Bladud* speaks thus:

I.

*Some say, I made the Holesom Baths at Bath,
And made, therefore, Two burning Tuns of Brass,
And other twain Seven Kinds of Salts, that have
In them inclos'd; but these be made of Glass;
With Sulphur fill'd, Wild-fire emixt there was.
And in Four Wells those Tuns so placed Heat, for aye
The Water springeth up before it pass away.*

II.

*Which Waters Heat, and cleansing perfect Power,
With Vapours of the Sulphur, Salts, and Fire,
Hath Vertue great to heal, and cleanse, and scower
The bathed Sores therein, that Health desire.
If of the Vertues more thou dost require*

To know, I will recite what old Experience tells,
In Causes cold, the Noble Virtues of those Wells.

III.

The Baths to soften Sinews Virtue have,
And also for to cleanse and scower the Skin;
From Morpheus White and Black to heal and save;
The Bodies freckled, faint, are bath'd therein,
Scabs, Lepry, Sores are old, and fester'd in
The Scurf, Botch, Itch, Gout, Pox, swell'd Foynts
and Humours fell,
The Milt and Liver hard it heals, and Palsey well.

IV.

I must confess, by Learned Skill I found (Men.
These Native Wells, whence springs that Help for
But well thou know'st, there runs from under
Ground
Springs, Sweet, Salt, Cold, and Hot, even now as
then,
From Rock, Salt Peter, Alom, Gravel, Fen,
From Sulphur, Iron, Lead, Gold, Silver, Brass and Tin,
Each Fountain takes the Force of Vein it coucheth in.

V.

Then who so knows by Nature's Work in these
Of Mettals or of Mines the Force to heal,
May sooner give his Judgment in Disease
For curing by the Bath; and surer deal
With sickly People of the Publick weal:
And also find of Fountains Salt, or Hot, or Cold,
And for to heal by them the Sick, with Honour be
bold.

VI.

VI.

*The City eke of Bathe I founded there,
Renowned far by Reason of the Wells:
And many Monuments that Antient were,
I placed there, Thou know'st the Story tells, &c.*

What Probability the Philosophical Part of this Poetry may carry concerning the Seven Kinds of Salts inclosed in Four Tuns, and Things relating thereunto, may be concluded much from what is Historical, and mentioned in the last Place, concerning the Monuments, which cannot possibly pretend to that Antiquity, being not in the least *British*, but purely *Roman*, as is made appear in the following Chapter; This, therefore, is to be taken as a Fancy, and so let it go.

Alexander Necham, somewhat above Four hundred Years ago, wrote these Verses on the Baths.

*Bathonix Thermiss vix præfero Virgilianas
Confecto profunt Balnea nostra Seni;
Profunt attritis, collisis, invalidisq;
Et quorum morbis frigida Causa subest.
Prævenit humanum stabilis natura laborem,
Servit Naturæ legibus Artis opus.
Igne suo succensa quibus data Balnea fervent
Ænea subter aquas Vasa latere putant.
Errorem figmenta solent inducere passim,
Sed quid? Sulphureum novimus esse locum.*

Which I thus made *English* :

Bath's Baines with *Virgil's* I compare,
Useful for Antient Folk they are,
Bruis'd, Weak, Consum'd, as well as Old,
And in all Griefs whose Source is Cold.
Nature Man's Labour doth prevent,
And Art again serves her Intent.
There's Fire under Ground, some say,
That thus makes *Bath's* great Pots to play.
Fancy doth often Error breed,
But what? from Brimstone these proceed.

As to the City, it is not, I think, to be doubted, but that the Baths were before that, and gave Name to it; Sick People making small Cottages first for their Conveniencies, which were afterwards improved into fairer Buildings. *Constat Latinum nomen huic Civitati ab Antiquis inditum, Aquæ Calidæ ex his Balneis,* saith *Andr. Baccius*, if the Testimony of a Stranger may be admitted; *It is certain the City was called Aquæ Calidæ from the Baths.* The Statues also of *Coil* a British King, and *Edgar* a Saxon, who are said, how truly I know not, to have given Charters to this City, placed at the End of the Town-Hall, or Council-House, are Arguments of its Antiquity, although, perhaps, they might be Patrons that were chosen by the Monks.

That *Edgar* was Crowned at *Bath* above 700 Years ago, *Bath* being then called an *Old Borough*, with great Solemnity, on *Whitsunday*,
appears

appears from these Words of the *Saxon Chronicle*, written by one that then lived, and writ his History but Three Years after his Coronation. *Anno 973. May 11. being Whitsunday, Edgar was consecrated King with great Glory, in that Old Borough Akemannesceastre, which by another Name they call Bathon; There was great Joy to all Men on that Blessed Day, which they call Pentecost; there was a great Assembly of Priests and Monks, and the Wise met there in Council.*

Edgar had lived 29 Years full of Trouble and Misery, when this came to pass, and in his 30th Year was Consecrated.

*Anno 520. or 71 Years after their Arrival here out of Germany, the English Saxons besieged this City, with whom King Arthur fought a great Battle on Mons Badonicus, now called Bannesdown, and slew so many of them, that they had little Heart to make any further Attempt for a considerable Time, but left it to the quiet Possession of the Britons. Yet Ninnius writeth, that the 12th of King Arthur's Battles against the Saxons, was at the Hill or Town of Bath, where many a one was slain by his Force and Might. The Saxons then had besieged Bath, King Arthur rais'd their Siege, and after besieged them on * Mons Badonicus, where he took their Camp, made a great Slaughter of them, and then kept his Christmas in Bath. This was the Year that Gildas was born, and thereupon was called Badonicus ever after.*

* Dr. Lloyd.

Anno 676. *Osbrich* founded here a Nunnery, and not long after *Offa* King of *Mercia* built a Church; both which in the Time of the *Danish* Wars were demolish'd. Out of the Ruins of these two arose the Church of *St. Peter*, in which *Edgar* was Crown'd. But more of the Church in its Place.

Anno 775. the Year in which *Offa* is said to have began this Church, he fought with *Kinewulf* King of the *West-Saxons* at *Bensington* near *Oxford*, overcame him, and took *Bensington*. This *Offa* is said to have spent much of his Time at *Bath*; *Iste Offa* (saith the Author of * *Brutus abbreviatus*) *multum morabatur Bathoniæ*. He began his Reign Anno 755. reigned 39 Years, and died Anno 794.

In the Time of *Edward* the Confessor *Bath* flourished exceedingly, † the King having there 64 Burghers, and 30 Burghers of others, the City paying Tribute according to the 20 Hides, which amounts to about 30 Yard Land.

In the Reign of *William Rufus*, ‖ *Robert Mowbray* Nephew to the Bishop of *Constance* sack'd and burnt it.

The Industrious Mr. *Pryn* in his †† *Brevia Parliamentaria rediviva*, and § 4th Part of a brief Register of Parliamentary Writs, hath given an Account of Citizens return'd to serve in Parliament for this City, ever since the 26th.

* *M.S.* † *Dooms-day Book.* ‖ *Cambden Br.*
 p. 234. †† *P.* 298. § *P.* 299.

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Year of King *Edward I.* about A. D. 1298. or 377 Years since.

In *Bath* are three Hospitals; itself, indeed, being but one great one, *St. John's*, *Bellot's*, and the *Bimburies*, otherwise called *St. Katherine's*, besides a Free-School erected in the Time of *Edward VI.*

The Hospital of *St. John's* was founded A. D. 1174. by *Reginald Fitz-Joceline*, a * *Lombard*, Bishop of *Bath* and *Wells*, and afterward translated to *Canterbury*; but before he was possessed of his new Honour, died, and was buried at *Bath*. It was valued at the Yearly Rent of 22*l.* 19*s.* 6*d.* since which Time its Revenues are much increas'd, to the great Advantage of him that hath it, and no less Profit and Reputation to the City, with the perpetual Entailment of God's everlasting Curse and Blast on the treacherous Head and Posterity of him, that is notoriously known to have been the Author of this Mischief. He gave it this Name from *St. John's* in the *Savoy*, where he was Consecrated Bishop, after his Return from beyond Sea, by *Richard* Archbishop of *Canterbury*.

Bellot's Hospital was built by *Thomas Bellot* Esq; one of the Executors of the Lord *Cecil*, in the Time of King *James*, of whom we shall treat more largely in the Chapter of the Church, to which he was an especial Benefactor.

* Godwin Cat. P. 364.

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As for the *Bimburies*, I can learn no more concerning it than this, That it was built by seven Sisters, who left this Hospital behind them as a Monument to Posterity, both of their Charity and Name.



C H A P. X.

Of the Roman Antiquities in Bath.

BUT the greatest Argument of Antiquity the Place affords, I suppose to be the Roman Coins found in or near it, with the Inscriptions and Images in the Town or Borough Walls; the latter of which, to wit, the Inscriptions and Images, Mr. *Campden* took Notice of, and inserted into his *Britannia*.

To begin with the Roman Coins: The First I shall mention is that of *Vespasian*, made 1600 Years since, this Emperor's Reign beginning A. D. 71. with this Circumscription on the Face-side: IMP. CAES. VESPASIAN. P. F. AUG. *Imperator Caesar Vespasianus, Pius, Felix, Augustus*. The Reverse; PIETAS AUGUSTI, with an Image between S. C. signifying *Senatus Consultum*. This is of Brass, and communicated by Mr. *John Parker* of *Bath*, where it was also found.

The Second is of *Trajan*, made A. D. 101. the Year this Emperor was 5th Time Consul;
read



(I)

Æ



(II)

Æ



(III)

Æ



(IV)

Æ

read thus; IMP. TRAJANO. AUG. GER. DAC. P. M. TR. P. *Imperator Trajano Augusto, Germanico, Dacico, Pontifici Maximo, Tribunitia Potestate.* Reverse; COS. V. P. P. S. P. Q. R. OPTIMO PRINC. *Consuli Quinto, Patri Patriæ Senatus Populusq; Romanus, Optimo Principi.* This is Silver, and was found at Wrigleton five Miles off of Bath, and given by Mr. Hugh Ivy, Rector there.

A Third is of *Carausius*, who usurp'd the Empire in Britain Anno Christi 285. reigned seven Years, was slain by *Alectus* who usurp'd after him, and was himself killed by *Asclepiodotus Præfectus Prætorio* Anno 295. The Circumscription thus: IMP. C. CARAUSIUS P. F. A U G. *Imperator, Cæsar Carausius, Pius Felix, Augustus*: On the other Side P A X A U G. *Pax Augusti.* And underneath an Image M. L X X. denoting *Miles*, or *Milites Legionis vicesimæ*. A Soldier, or the Soldiers of the 20th Legion, with B. E. on both Sides of the Image signifying *Britannicus Exercitus* *

The Fourth is of *Constantine* the younger, made Cæsar together with *Licinius* and *Crispus* in March, Anno Christi 316. with these Letters round the Head: CONSTANTINUS IUN. NOB. C. *Constantius Junior Nobilissimus Cæsar.* The Reverse a Palace, and PROVIDENTIAE CAESS. *Providentiæ Cæsarum.* It is the Palace in which he lived at Triers, ex-

* If M I. XX. as it rather seems, it may denote Miles, or Militia vicesimæ.

pressed in the Letters underneath P. T R E that is, *Pecunia Treviris*.

The Fifth of *Alex. Sever.* A. D. 224. with this Inscription: IMP. C. M. AUR. SEV. ALEXAND. AUG. *Imperator Caesar Marcus Aurelius Severus Alexander Augustus.* The Reverse; P. M. T. R. P. II. COS. P. P. *Pontifex Maximus Tribunitia Potestate Secundo Consul, Pater Patriæ.* These Three are Brass, and were found in *Bath*, and given by *Mr. Parker*.

The Sixth is a Coin of *Constantius* made Anno Christi 357. in May, when he kept his *Vicenalia*, as appears by *Votis XXX. Votis triginta, Multis XXXX. Multis quadraginta*, within a Wreath. On the Reverse; The Coin stamp at *Constantinople*, as is evident from the Letters P. CON. signifying *Pecunia Constantinopoli*. On the Face-side DN. CONSTANTIUS P. F. AUG. *Dominus Constantius Pius, Felix, Augustus.* This is Silver, and was found in *Glostershire*, not far hence, and given by *Mr. Edward Barnard*, a skillful Bone-setter at *Tedbury* in that County.

The Seventh is a Brass Piece of *Valentinian* the Second, who Reigned A. D. 375, with this Inscription on the Face-side DN. VALENTINIANUS P. F. AUG. *Dominus Valentinianus Pius Felix Augustus.* The Reverse, *Victory* holding a Palm-Branch in the left Hand, and offering a Garland with the Right; the Motto, SECURITAS REIPUBLICAE, and P. CON. *Pecunia Constantinopoli*, underneath.

The Eighth is a Brass Coin of *Constantine* the Great, about the Year of Christ 307, with this Inscription CONSTANTINO CAES. *Constantino*



(V)



(VI)



(VII)



(VIII)



stantino Cafari. Reverse, *Victory* with a Spear and Shield, only these Letters under P. TRE. *Pecunia Treviris.* These two were the Gift of that Worthy Gentleman *John Harrington Esq;* Grandson to the Ingenious and Noble Sir *John Harrington* (of whom more in the Chapter of the Church) and were found in his own Grounds at *Kelston*, three Miles distant West of *Bath*.

These are all the Coins I have met with yet of any Value, among many others of none at all.

The Inscriptions and Images next succeed; and the First I take Notice of is the nearest to the North-gate, being a Memorial of a *Roman* Senator, of the Colony of *Glocester*, * a City built by the *Romans*, who also placed there a Colony called *Colonia Glevum*. The Inscription thus:

DEC. COLONAE
GLEV. VIXIT
AN. LXXXVIII.

i. e. *Decurioni Coloniae Glevi. Vixit annos
Octoginta octo.*

* *Cambd. Br. p. 300.*

Leaves folded in are at the East End of this Inscription. Fig. 13. A little lower more Leafage not express'd.

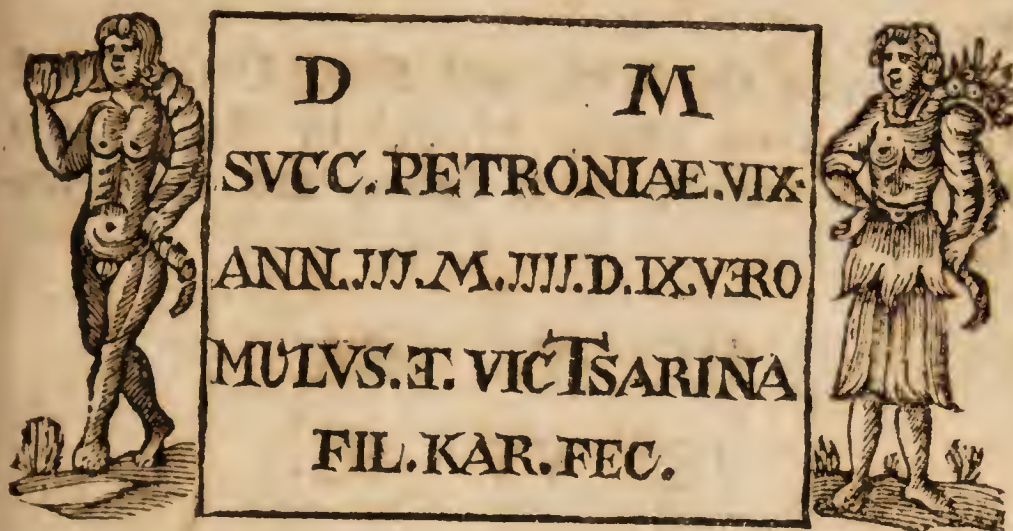
And whereas I render *Decurio* a Senator, I pitch on this Signification of the Word as most proper here, of which *Rosinus* gives this Account : † *Senatores in Colonis, ut etiam in Municipiis, Decuriones vocabantur, eam ob causam, quòd, Pomponio I. C. Authore, decima pars eorum qui deducerentur, sit solita Conscribi.* I know *Festus* mentions another and more usual Signification of the Word, to wit, an Officer over 10 Horsemen ; *Decuriones, inquit, appellantur qui denis Equitibus præsunt.* Of which if any please to understand it, he shall have my Leave.

The next is a little Image about a Foot and a half in Length, supposed by Mr. *Cambden* to be *Hercules*, bearing his left Hand aloft, with a Club in his right. See Fig. 11.

Next to that lower, toward the West-gate, is the Monument of one of the Children of two Romans, *Primulus*, *Romulus*, *Vipomulus*, or rather *Veteromulus* (for that Word in the Stone is somewhat difficult to be read) and *Victisarina*, with a longer and exactly Roman Inscription, in a Sepulchre Table, between two little Images, whereof the one holds the Horn of *Amalthæa*, or *Cornucopia* ; the other bringeth a flying Roll or winding List or Banner over the left Shoulder.

† *Ant. Rom. l. 10. c. 24.*

The Inscription thus,



* *Diis Manibus Successæ Petroniæ, Vixit annos tres, menses quatuor, Dies Novem. Veteromulus & Victisarina filiæ Carissimæ fecerunt: i.e. To the Ghost of Successa Petronia, who lived three Years, four Months, and nine Days. Veteromulus and Victisarina, in Memory of their dear Child, made this.*

A little after follow these Letters, in a Cut Stone, very imperfect:

V R N.
I O P.

* *This Inscription Cambden sent to Gruterus; and may be seen in Grut. Inscript. Pag. DCC. fig. 6.*

In the outside of the Wall, pretty high, is Head, which seems of no great Moment, *Fig. 9.* And as for *Hercules* straining two Snakes, I cannot yet be so fortunate as to light upon it. *Fig. 14.*

Between the West and South-Gates stand these Letters cross, which, by Reason the Stone is cut on both Sides, are unaccountable:

III. VS. SA.

IS. VX. SC.

Then two fierce Heads, one within the Cope of the Wall, and another in the Outside thereof hard by. *Fig. 7, 8.*

After that, these Letters standing overthwart, of which no Sense can be made:

I L L A.

I L L A.

Near this Place formerly was a Hare running (now lost) which might be the *Rebus* of a *Leporius* that set up this Monument. There were of that Name in *Britain*, and it is now the Name of the Honourable Family of my Lord of *Colerain*. *Fig. 15.*

An angry Man laying hold of a poor Peasant, which may be a bold insulting *Roman*, on a poor distressed captivated *Briton*. See *Fig. 6.*

Leafage.

Leafage with Leaves folded in; Fig. 5.

Two kissing and clipping each other, which by the Crook in the right Hand of one, and the Dog upon the other, seem to be a Shepherd and his Mistress; the Dog reaching up towards the Head of the Woman. *See Fig. 4.*

A Foot Soldier Brandishing his Sword, and bearing out his Shield. *Fig. 3.*

A Footman with a Truncheon in his right Hand. *Fig. 2.*

A great Face, or a Giant's Head, with Hair, *Fig. 1.*

As for *Medusa's* Head all Snakes, I cannot, on the best Enquiry I can make, find it out. *See Fig. 10.*

Neither doth *Ophiucus* occur to me. 'Tis therefore, I believe, lost in the Alteration of the Wall, as the Hare and *Medusa's* Head mentioned before. *See Fig. 12.*

At *Walcot*, a Parish adjoyning to the City, was found a Stone with this Inscription:

VIBIA IVCVND A

H. S. E.

i. e. *Here lies Vibia Jucunda.*

H 2

Jucunda

Fucunda was an *Agnomen* of the Family *Carvilia*, and it seems of *Vibia*, as *Latus* of the *Claudia* and *Pomponia*.

In *Bath* also might be seen this Inscription,
On *Henry Coriat*.

MORTUUS. HIC. ET. SEPULTUS.
JACET. BIPEDUM. NEQUISSIMUS.
H. C. IMPIETATE. ARROGANTIA.
LOQUACITATE. IMPUDENTIA.
FASTU. ET. FRAUDE. NULLI. SE-
CUNDUS. MALUS. PARENS. GU-
BERNATOR. PEJOR. CIVIS. PESSI-
MUS. QUI. POSTQUAM. LX. ANNO-
RUM. CURRICULUM. RAPINIS. ET.
LITIBUS. ARMATUS. ET. INERMIS.
LONGANIMITATE. DEI. MAXIMA.
TRANSEGISSET. PAUPERUM. PTO-
CHOTROPHII. S. JOANNIS. BA-
THONENSIS. ALIMONIAM. IN. AL-
TERIUS. MANUS. PERFIDE. DEDIS-
SET. ET. FISCUM. CIVITATIS. PUB-
LICUM. IN. PRIVATOS. USUS. CON-
VERTISSET. INTER. ALIORUM.
ODIUM. CONSANGUINEORUM. MI-
SERICORDIAM. SINE. PLANCTU.
ET. LACHRYMIS. A. NEMINE. DE-
SIDERATUS. EX. HAC. VITA. MI-
GRAVIT. IN. VENTURAM. UT
POENAS. AEQUALI. IMPUDENTIA.
SUSTINEAT. AETERNAS. NISI. EI-
DEM.

DEM. SUCCURRAT. QUOD MINI-
ME. SPERANDUM. SALUS. ALTIS-
SIMI. QUAE. ILLUM. QUIDEM. IPSA.
NON. POTUIT. SALVARE.

Lastly, there are two fair Inscriptions, in two Grave-stones, erected in the North-wall of a Garden by the Cross Bath, belonging to Mrs. *Crofts*, preserved by Mr. *Robert Chambers*, Father to Dr. *Humphry Chambers*, born in this City; between which, *Robert Chambers* hath this Inscription, which preserveth him as he has done the other two.

HEC. MONUMEN. VIO
LATA. SVLCIS. IN. CA
MP. DE. WALCOT. R. C.
CULTOR. ANTIQ. HUC.
TRANSTVLIT. AN^o.
VER. INCAR. 1592.

The Inscription on the East of this, is an Epitaph of *Caius Murrius*, of the Tribe called *Arniensis*, the 25th Tribe among the Romans (so called from *Arnus* a River in *Tuscany*, as *Carolus Sigonius* and *Onuphrius Panvinius* relate,) born at *Friuli*, or *Forum Julium*; a modest Soldier of the Second Legion called *Adjutrix pia felix*, under the Command of *Julius Secundus*, 25 Years of Age; how long in pay is broken out of the Stone, but I suppose, Eight. The Inscription as follows:

C. M V R R I V S.
 C. F. A R N I E N S I S
 F O R O I V L I. M O
 D E S T V S. M I L.
 L E G. I I A D. P. F.
 I V L I. S E C V N D I.
 A N. XXV. S T I P.
 H. S.

Caius Murrius, Caii filius, Arniensis, Foro-Julienfis, Modestus Miles Legionis Secundæ, adjutricis piæ, sælicis Julii Secundi, Anni Vigin-ti quinque Stipendio octo, Hic situs est.

The other on the West is an Epitaph of *Marcus Valerius* a Latin (as I read, Mr. *Cambden Eaton*, it seems to be an *Agnomen*) a Soldier of *Augustus* his Legion (or the 20th.) 35 Years of Age, and 20 Years in Pay.

The true Copy thus :

D I S M A N I B U S
 M. V A L E R I U S. M.
 F I L L A T I N U S. C. F.
 M I L E S. L E G. X. A N.
 XXV. S T I P E N. XX.
 H. S. E.

i. e. *Dis Manibus. Marcus Valerius Marci filius Latinus Coh. Equitum Miles legionis Augustæ (aut vicesimæ) annis triginta quinque, Stipendio viginti, Hic situs est.*

Where it may be noted, * that this Man was admitted at Fifteen Years of Age, when the usual Time of lifting Solders was not 'till Seventeen.

Ophiuchus, Hercules straining two Snakes, Medusa's Head, and the Hare, are lost. Vid. Fig. 10, 12, 14, 15.



C H A P. XI.

*Of the Church of St. PETER and PAUL
in B A T H.*

CONCERNING that neat and curious Fabrick, the Church of *St. Peter and Paul*, commonly called the Abbey Church in *Bath*, I need not give any other Account, than what *Sir John Harington*, (a neighbouring Knight, whose good Will to this Church and City did rival the Acuteness of his Wit and Learning, being both very great) hath done some time since, in a Latin Poem writ and spoken to Bishop

* *Al. ab. Al. Gen. Dier, l. i. c. 20.*

Montague, at his first Visitation and Sight of the Church, then uncover'd. The Manuscript Copy found in Sir John's Study, and Communicated by his Grandson, John Harington of Kellston, Esquire, hath this Title; *Conditio- nes variæ Ecclesiæ Sancti Petri & Pauli Batho- niensis, à primis fundamentis jactis Anno 775, ad annum decurrentem 1609, Historico-poetica ἐξήγησις; deque sælicissima ejusdem Ecclesiæ re- stauracione, Vaticinium. Ad Reverendissimum in Christo Patrem, Jacobum, Providentiâ Divinâ, dignissimum Ecclesiæ Bathoniensis & Wellensis Episcopum, Bathoniam primò sæliciter invisentem & visitantem.*





T H E
P O E M.

*M*acte: bonis avibus, recidi vi limina Templi,
In Christo Reverende Pater, gratissimus intras.
Maeste: sed haud pigeat prius, æqua mente, parumper
Pristina Delubri perpendere fata miselli.

H I S T O R I A.

Temporis Elapsi studio monumenta revolvens
Attento, invenies, hujus fundamina templi
*Prima * Offam, priscum regem, jecisse: Secunda*
† Elphegum, regni Primatem; tertia tandem
(Cum duo Danorum rabies, ignisque, priora
Vastasset) Sumptu posuit majore Johannes 10
*De villa, natu * Gallus, non infimus artis*
Professor medicæ; Wellensi ingrator ædi;
Qui quùm illic variis viguisset Episcopus annis
Sedem, Thermopolim, Cathedralem transtulit illinc,

* An. 775. † 1010. * 1088.

*Urbe hac quingentis Marcis, à Rege coempta.
Pulchrius antiquis sanum construxit; at ipsum
Ævo, Combussit pariter Jovis ira, sequenti.*

*Struكتورum Celebris misit Normannia, quartum
Officio Monachum, † Rodbertum nomine, molem
Subversam toties qui restauravit, & inter 20
Presbyteros, litem, de Sedis honore, diremit,
Exornans titulis utramque æqualibus urbem.*

*Tandem, post seriem numerosam, munificamque,
Insignis præsul pietate, vicesimus atque
Tertius, hunc sequitur, qui faustum nominis omen
Expressit factis, * Oliver King dictus; Olivam
Et Regem vere referebat: adinstar Olive
Pacis erat populo, simul ubertatis & author;
At magis hoc retulit, regali munere, regem,
Quippe opus incultum Rodberti sustulit: atqui 30
Illius, ex templo, vice fundamenta locavit
Ista; dedit Solidis speciosa pteromata muris.
Tecta superstruxit sublimibus alta columnis.
Areolas Soleis longas substravit & amplas.
Omnia, ad hanc pulchram, struكتورus cætera, formam,
Et spoliis, dubio procul, instruكتورus, opimis,
Morte immortales, subito est arreptus, ad arces.
(Tantæ molis erat tam clarum condere Templum!)
Ne tamen his tantis perfectio debita cæptis
Desoret, huic operi colophonem attexuit almus 40
Abbatia Reكتور Gulielmus Birdus. At eheu
Sanctis stare diu, fatis (proh fata) negatum est!
Horrida de innocuis fertur sententia fanis;
Abbatia pereunt, spoliantur Tempia, rapinis
Tecta patent, reditus, fundi, sacraria; quid non?
(Unde nefas tantum Zeli fautoribus?) una.*

Ipse, vel in cunis, insons discerpitur infans.
 Impete diripitur violento hæc fabrica; prostant
 Saxa, vitrum, plumbi; Campanæ, ac omnia præter
 Hoc miserum σκελετόν. Tantæ at quæ causa ruina? 50
 Num pietatis amor? vel amor sceleratus habendi?
 Hic amor exitio est Templis, Templique ministris.
 Hic amor extinxit clarissima lumina regni;
 Nec sinit hic amor hæc extincta resumere lucem.
 Nemo bonum Templi, Templi bona quisq; requirit.
 Hinc hæc, Cimmeriis, per tot, tam turpiter, annos,
 Maxima lux Urbis, latuit suppressa, tenebris.
 Sed pater omni-bonus, cui provida cura suorum est,
 Hanc piceam, nuper, cælesti lampade, noctem
 Dispulit è multis Sanctorum cordibus, unde 60
 Accendere suo nostrum de Lumine lumen.
 Sic tamen ut quivis magis hinc sibi luceat ipsi
 Ut tacito ad præsens reliquo veneremur honore,
 Vivida quos totum celebrabit fama per orbem;
 Nobile Bellotti Sidus sic emicat, omnes
 Inter nutritios Templorum jure colendos,
 Plena velut Stellis præfulget luna minatis.
 Singula quæ cernis pulchræ ornamenta Capelle,
 Area, porta, solum, subsellia, rostra, fenestræ,
 Bellottum unanimi compellant voce parentem. 70
 Bellottum Sonitu reboat Campana Sonoro,
 Πρωχτροφέϊα sonant Bellottum, Balnea, Vici,
 Compita, Bellotti jactant ad sidera nomen.
 Quod Christi est cultor, simul excultorq; sacrorum.

VATICINIUM.

Desine plura: sat est veterum: peragenda peractis
 Succedant, meliora bonis, majora minutis.

Auspiciis hac misse sacris (Sanctissime Præsul)
 Sensibus hæc imis superum consulta repone,

*Quæ Tibi fatidico disspandit carmine Vates,
Læta ruinoso proclamans omnia Templo.* 80

*Quo decet hanc spectata, vultu, sine nube, sereno
Fecundam laudum segetem sine fine Tuarum.*

*Molliter ossa cubent Offæ, ac Elphegi, Oliveri,
Rodberti, ac Birdi: merito celebrentur honore.
Debita Bellotto, reddatur palma benigno.*

Perpius extento Bellottus floreat ævo.

Non equidem invideo, lætor mage: gratulor illi.

*Quod si tam celebrem mereatur guttula laudem,
Præmia quæ referet, largos qui funditat imbres?*

Tantum at honorifico cedes, Bellotte, Jacobo, 90
Effuso tenuis quantum imbri guttula cedit.

*Bellotti guttis rorata Capella virescit;
Imbribus assiduis divi madefacta Jacobi,
Integra quam latos diffundent Temppla racemos?*

*Nec tamen hæc aqueo, vitis cupit, imbre rigari:
Aureolo hanc Danaem Saturabis, Jupiter, imbre.
Hinc quæ spreta diu languenti Ecclesia morbo
Intabuit, vitam, Te, Te medicante, resunit,
Ut redit infuso flaccescens Vena Lyæo.*

Hujus sint alii fautores, sidera, fani: 100
Cynthia Bellottus; solus Tu & Æolus Apollo.

Hæc Tu vivifico reparabis membra calore:

Hæc Tu magnifico decorabis Tecta nitore.

*Aspice surgenti latentur ut omnia Templo?
Grandævum videor mihi prospectare Jacobum,
Aspectûs Virtute Tui, torpore solutum,
Atque reornato scandentem climace Cælos.*

Ut renovat vires? ut concipit æthera mente?

*Insuper alatos, ultro citroque meantes
Cælicos video, bona climacteribus istis* 110

Nuncia portantes Superis: ac gaudia divûm

Inde renarrantes terris de Præsule tanto,

Teque cohortantes, (propria sat sponte citatum)

Euge: opus hoc miræ pietatis perfice Præsul!

Te nempe ad decus hoc peperit Natura; replevit
 Dotibus eximiis Deus: Ars perfecta polivit:
 In gremio resovet ter magni gratia regis:
 Ditavitque * bonis, tanta ad molimina, natis.
 Huc opulenta Tibi sua fundit viscera Tellus,
 Huc Tua Te Virtus, sorte ancillante, propellit. 120
 Euge; opus hoc miræ pietatis perfice Præsul!
 Aggredere æternos (servit Tibi tempus) honores.
 His petitur Cælum scalis, hac itur ad astra.

Nec mora: fervet opus. Structor, Lapidæ, peritus
 Gypsator, Sculptor, Fusor, Vitrarius: omnes
 Artifices instant ardentes. Mœnia surgunt,
 Dissita quæ fuerant loca concamerantur Erismis;
 Extima plumboso velantur tegmine, pulchris
 Intima celantur laquearibus: omnia miris
 Sunt decorata modis: respondent omnia votis. 130
 Nec deerunt Mystæ, celebrent qui sacra, frequentes:
 Sed numerosa brevi totam quæ compleat adem
 Pompa Sacerdotum, Psalmorumque decano
 Præducente chorum, cantabit grata Jhovæ
 Cantica, tantorum fonti, authorique bonorum.
 Hæc mihi præsagit mens non ignara futuri.

Corpore (quis neget hoc?) specioso hæc Templum Ja-
 Donavit Præsul, (pia nam decreta proborum (cobus
 Æquivalent factis) animum Rex ipse Jacobus
 (Hoc quoque quis dubitat?) tribuet. Deus alme Ja-
 cobi 140

Decretis benedic factisque utriusque Jacobi.
 O fortunatam nimium bona si Tua nōris
 Thermopolim, tali frueris quæ Præsule, Rege!
 Funde Deo summas ex imo pectore grates,
 Et cole perpetuo pietatis honore Jacobos.

Quo pede capisti, Præsul Sanctissime, pergas.

* Plumbi fodina in agro Mendipensi.

EPISCOPI RESPONSIO.

CUpivi diu, has ruinas, & hæc rudera videre & contemplari; has vero ruinas & hæc rudera videre, & contemplari, jam dolet: Ingrediar tamen, sed hoc animo, ut nunquam, hoc more, sim reingressurus, priusquam isthæc melius tecta videro.



THE



THE
TRANSLATION.

AN

Historico-Poetical Account

OF

*The various State of the Church of St. PETER
and PAUL in BATH, from its first Foun-
dation, in the Year 775, to this present Year
1609.*

ALSO,

*A PROPHECY of the Happy Restora-
tion of the same Church.*

Welcome, Right Reverend, to this Place,
Invited both by Heart and Face;
Enter; but first let me relate
This ruin'd Church's former Fate.

If Antient Monuments you turn over,
King * *Offa* first you will discover

* *An. 775.*

To found a Temple in this Place ;
 Arch-Bishop * *Elphege* next his Grace ;
 The Third (when *Danish* Rage and Fire
 To ruine both these did conspire)

10

With greater Cost † *John* clep'd *de Villa*,
 A French Man born, but, silly Fellow,
 § Profeſt the Art, if Story's true,
 The Grounds of which he never knew.

This Man at *Wells* did take a Pet,
 And many Years did B ſhop fit ;
 But once in Rage remov'd his See,
 And caus'd it here in *Bath* to be.
 Five hundred Mark the City coſt
 The B ſhop from the King, at moſt.
 Where he a neater Pile did raiſe,
 Which did not long proclaim his Praise ;
 For God not pleas'd with him that Quackt,
 Made Sacrifice his Pious Act.

20

Brave *Normandy* a Fourth then ſent,
 Monk *Robert*, who with good Intent
 This ruin'd Fabrick did repair,
 Compos'd the Strife about the Chair ;
 Caus'd his Succeſſors, Story tells,
 To bear the Name of *Bath* and *Wells*.

30

At length, when Benefactors ſtore
 Had grac'd this Church where we adore,
 The Threë-and-twentieth Biſhop came,
 Who, minded by his lucky Name,
 || *Oliver King*, could do no leſs
 Than King and Olive both expreſs.
 Like Olive, Peace and Plenty great,
 Were Products of this Biſhop's Seat ;

* 1010. † 1088. § *Uſu, non Literis, Medicus probatus.* G. Malm. || *An.* 1137.

But,

But, to say Truth, in this grand Thing,
He did resemble more a King: 40

Robert's Attempt away he took;
And rais'd this Church on which you look;
Strong Walls, fine Buttresses, the Roof,
With stately Pillars bearing Proof:

Made Walks and Isles both long and fair:
In short, this handsom Pile did rear;

And, doubtless, it was his Intent,
(But sudden Death did him prevent)

To have endow'd this Church with Lands,
(He must Obey, when God Commands.) 50

So great a Task it was, I wis,
To build so fine a Church as this!

Now left the Work at Stay should stand,
Good Prior * Bird put his last Hand,

He finish'd, with his Cost, the Thing,
And found some Work after a King.

But, Oh the Fate of what is Holy!
And, Oh the Mad Religious Folly!

Nothing that Sacred is, must hold,
And Men with Temples must make bold; 60

Abbeys are ruin'd, Churches sack'd,
Roofs sold, and Rents are more than rack'd;

Deluge of Sacrilege! what not?
Have Zealots thus their God forgot?

* William Bird, the last Prior of Bath. In the South Side of the Chapel, outward, is a Memorial of his Name, a W. and a Bird in Stone, with his Coat of Arms in the Chapel built by himself, and called, after him, Bird's Chapel. He was not buried here, but died very poor, having been blind for some Time, and given much to Chymistry, while Prior here. See Mr. Ashm. Theatr. Chym Brit. p. 475. in Annot.

This innocent *Chrysom's* box'd about,
 And torn, ev'n in its Swadling-clout:
 The Fabrick's spoil'd, they sell the Stones,
 Glafs, Lead, Bells, all, except these Bones;
 Of this great Spoil, what was the Cause;
 Was't Love of Money, or God's Laws? 70

'Tis that hath ruin'd Church and Priest,
 And laid our greatest Heads to rest:

'Tis that extinguish'd, and keeps out
 The Lights, that erst shone all about.

None seek the Church's Good, but all
 What they steal from it their own call;

Hence in the darkest, blackest Night,
 Hath lodg'd the City's greatest Light.

But our good God, who loves his own,
 This pitchy Storm away hath blown, 80

And with his Heavenly Lamp dispell'd
 The Chains of Darknes which us held,

So that we now beholden are

To them for Light they to us spare;

Yet so as each hath Light enough

To give due Praise without a Snuff,

To whom Deserts shall gain a Name,

And spread o'er all the World a Fame.

So far hath * *Bellot's* Star outshin'd

Whoever hath to Church been kind, 90

As doth Full-Moon, in Starry Night,

Exceed the lesser Torches Light.

The Chapel Ornaments, the Floor,

The Benches, Windows, Seats, and Door,

Call *Bellot* Father; and the Bell

Rings *Bellot*, though it ring a Knell.

* Thomas Bellot, *Esq*; one of the Executors of W.
Lord Burleigh, some time *Lord Treasurer of England*.

Hospitals, Baths, Streets, and High-ways,
 Sound out the Noble *Bellot's* Praise,
 'Cause he was Pious, and hath given
 Much, whose Reward shall be in Heaven. 100

The P R O P H E T.

Forbear my Muse; change now thy Text,
 Come to Things greater, better, next.
 Enough of old Things: Now succeeds
 A good Supply to former Deeds.

Thou, Reverend Prelate, sent to us
 By God Almighty's *Mittimus*,
 Consider deeply what he says
 To thee, through my Prophetick Bays,
 Wishing this Church no other Ill,
 Than to be built, and flourish still. 110

View with clear Aspect from the Top,
 Your endless Praises fruitful Crop.
 Let *Offa*, *Elphege*, *Oliver*, rest,
Robert and *Bird*, in Honour's Nest:
 Let bounteous *Bellot* take the Palm,
 And after Age his Name embalm,
 I envy not, but more rejoice,
 And give him too my thankful Voice.
 If to a Drop this Praise be due,
 What's to a greater Stock, think you? 120
 He well deserves a grateful Sense
 That showers down Benevolence.

Bellot alone to *James* gives way,
 Diff'ring as Drop and Shower may.
Bellot's Drops make the Chapel thrive,
 When *James* Divine, long Showers shall give, }
 How will all the Fabrick sprouting live? }

This Vine loves not a Watry Show'r;
 Gold into *Danaë Jove* will pour,
 So that this Church, that long hath been 130
 Consumptive, by thy Skill agen
 Gets Strength, as the flagg'd Vein plumps up
 And swells with *Bacchus* chearful Cup.

Others this Church may somewhat flee'd,
Bellot's the Moon, You Sun indeed:
 With lively Rays these Limbs restore,
 Thy Roof you'll nobly cover o'er.

Behold! how all Things now are glad,
 Old *Jacob* wakes, and as a Lad
 Enliven'd by your Presence here, 140
 Ascends the Ladder quick and clear;
 Look how he mounts, striving to rise,
 And makes with Vigour to the Skies!

Methinks I see the Winged Host
 Of their new Message seem to boast,
 Telling the News above, and then
 Returning with God's Joy to Men:
 And quickning you, though quick before,
 Compleat this Work we you implore.

Nature hath bred you for this End; 150
 To this God's great Endowments tend.
 Art you hath wrought, the King embraces,
 Who seldom doth misplace his Graces.
 And you hath aptly given a * Mine,
 Prepared for this great Design:
 The Earth her Bowels ope's to you,
 And your good Nature prompts you too.
 Finish the Work, Time serves, My Lord,
 Which will eternal Praise afford.

* The Lead Mines of Mendip.

This Way you will to Heaven climb,
And to the Stars your self sublime. 160

Præsto, The Work advances, all
The Labouring Men are come at Call;
Builder, Stone-cutter, Plaisterer,
Graver, Bell-founder, Glazier,
All busie. Walls are up; The Space
That common was, Arches embrace.
The Outside's leaded, Roof adorn'd,
And all Things to my Wish perform'd.

Nor will there wanting be a Quire, 170
Which to this Place may all retire,
And with Resort, and their own Train,
Fill this whole Temple once again.
Priests in their Habits, Singers, and
A Dean the Quire to command:
Will Anthems sing to God above,
And praise the Fountain-Head, his Love.
My Mind persuades me this will be,
And I can at some Distance see.

The Prelate *James* (none can deny) 180
Hath given a *Body* large and high,
(For those Things that good Men decree
Are equal with their Deeds to me)
A *Soul* King *James* (who can this doubt?)
Will add, to make this Compound out.

Now *Jacob's* God blefs *James's* twain,
Their Actions and Intents maintain!
O happy *Bath*, if thou didst know
From whence thy Happiness doth flow!
A King and Bishop now thou hast, 190
Ne'er yet outdone in Ages past;
Give Thanks to God with all thy Heart,
And Honour to both *James's* impart.

*Proceed, Most Worthy Prelate, in
The Thing you did so well begin,*

The Bishop's A N S W E R.

I HAVE long desired to see and contemplate these Ruins and Rubbish; and now it grieves me to behold Them: However, I will enter; but with this Intent, Never to re-enter 'till I see them better cover'd.

For a fuller Confirmation of the precedent Particulars, I think fit to insert in this Place an Extract out of an Ancient Record, now in the House of my honoured Friend *Edward Cofin, Esq;* whose Genius inclining him to the Study of Antiquity, hath collected and communicated it to me.

Johannes de Villula, the 16th Bishop of *Wells*, having bought the Town of *Bath* of King *Henry the First* for Five hundred Marks, transferred his Seat unto that City, 1088. Hence grew a Jar between the Monks of *Bath* and Canons of *Wells*, about the Election of the Bishop. At last the Difference was composed by that Bishop *Robert* whom before I spake of: That from thenceforward the Bishop should be nominated from both Places, and that Precedency in the Style should be given to *Bath*. That in the Vacancy of the See, a great Number of Delegates from both Churches should elect their Prelate, who being elected, should be installed in them both: both of them to be reckon'd as the Bishop's Chapter, and the Grants and Patents confirmed in both. And so it stood until the Reign of King *Henry the Eighth*; what Time the Monastery of *Bath* being dissolved, there passed an

Act

Act of Parliament for the Dean and Chapter of *Wells*, to make one Sole Chapter for the Bishop, A. 35. H. 8. c. 15. *Thus far Mr. Cosin.*

The Church that now is, was first begun A. D. 1137. by *Oliver King* Doctor of Laws, of King's College in *Cambridge*, Principal Secretary to three Monarchs of this Land, *Edward* the Fourth, *Edward* the Fifth, and *Henry* the Seventh, Register of the Knights of the Garter, Bishop of *Exeter*, and thence translated hither November 6. 1495. died 24th of *January* 1503, and is thought to lie buried at *Windsor*, where he was sometime Canon. It was Four hundred Seventy Five Years before it was compleated and brought to Perfection (having made many Halts by the Way) and was finish'd about the Middle of King *James's* Reign, near A. D. 1612, as by the Munificence of Noblemen, Knights, Gentlemen and others, so especially by the liberal Hand of the Learned Dr. *James Mountague* Bishop of this Diocess, to whom the former Poem was directed, who at one Time gave a Thousand Pounds towards its Reparation, and lies buried, by his own Appointment, under a fair Marble Monument, in the Body of the Church, deceased *July* 20, 1618, with this elegant Epitaph on the South-side :

MEMORIÆ SACRUM
PIETATE VIRTUTE ET DOCTRINA
INSIGNIS JACOBUS MONTACUTUS
EDVARDI MONTACUTI DE BOUGHTON
IN COMITATU NORTHAMTONIÆ
EQUITIS AURATI A SAR. COMITIBUS
DEDUCTA PROPAGINE FILIUS

LIUS QUINTOGENITUS A SAPIENTISSIMO JACOBO REGE SACELLO REGIO DECANUS PRÆPOSITUS AD EPISCOPATUM BATHONIENSEM PROMOTUS ET DEINDE AD WINTONIENSEM OB SPECTATAM IN MAXIMIS NEGOTIIS FIDEM DEXTERITATEM ET PRUDENTIAM IN SANCTIUS CONCILIUM ADSCITUS REGIQUE CUI CHARISSIMUS ERAT IN AULA ASSIDUUS IN MEDIO ACTUOSÆ VITÆ CURSU QUAM DEO ECCLESIAE ET PATRIÆ DEVOVERAT AD ÆTERNAM VITAM EVOCATUS 20. JULII ANNO DOMINI 1618. ÆTATIS 50.

Sacred to Memory.

For Piety, Vertue and Learning, very eminent, James Montague, Fifth Son of Sir Edward Montague, of Boughton, in the County of Northampton, Knight, lineally descended from the Earls of Salisbury: By the most wise King James made Dean of the Chapel, then Bishop of Bath, afterwards Bishop of Winchester, and for his Faithfulness, Dexterity and Prudence in weighty Affairs, chosen one of the Privy Council, and very much at Court, being in great Favour with the King: In the midst of a busie Life, which he had devoted to God, the Church, and Country, was summoned to Life everlasting, 20 July 1618, in the 50th Year of his Age.

On the North Side, this Inscription.

REVERENDISSIMUS HIC EPISCOPUS
IN HOC TEMPLO ANTIQUISSIMO
QUOD INTER ALIA MULTA EGRE-
GIA PIETATIS MONUMENTA MAXI-
MIS IMPENSIS INSTAURAVIT COR-
PUS DEPONI JUSSIT DONEC CHRIS-
TO REDEMPTORI VIDEBITUR EUM
CUM JUSTIS AD INTERMINATAM
VITAM QUAM IN TERRIS SEMPER
ANHELAVIT EXCITARE EDVARDUS
MONTACUTUS DE BOUGHTON
HENRICUS MONTACUTUS CAPI-
TALIS IN BANCO REGIO JUSTITIA-
RIUS CAROLUS MONTACUTUS
TESTAMENTI CURATOR ET SIDNE-
IUS MONTACUTUS A SUPPLICUM LI-
BELLIS EQUITES AURATI FRATRI
OPTIME MERITO CUM LACHRIMIS
POSUERUNT.

In this most Ancient Church, which among many other Monuments of Piety, with great Charge, he repaired; This most Reverend Bishop commanded his Body to be laid, until Christ the Redcemer shall please to raise him, with the Just, to Life Eternal, which, when on Earth, he earnestly desired.

Sir Edward Mountague of Boughton, Sir Henry Mountague Lord Chief Justice of the King's Bench, Sir Charles Mountague his Executor, and Sir Sidney Mountague Master of the Requests, Knights,

*to their most deserving Brother, in much Sorrow,
erected this Monument.*

Concerning *Oliver King*, the Founder of this Church, * *Sir John Harrington* tells this pretty Story: That lying at *Bath*, and musing or meditating one Night late, after his Devotions and Prayers for the Prosperity of *Henry* the Seventh and his Children (who were then all or most Part living) to which King he was Principal Secretary, and by him preferred to this Bishoprick; he saw, or supposed he saw, a Vision of the Holy Trinity, with Angels ascending and descending by a Ladder, near to which there was a fair Olive-Tree supporting a Crown, and a Voice said, *Let an Olive establish the Crown, and let a King restore the Church.* Of this Dream or Vision he took exceeding great Comfort, and told it divers of his Friends, applying it to the King his Master in Part, and some Part to himself. To his Master, because the *Olive* being the Emblem or Hieroglyphick of *Peace* and *Plenty* seemed to him to allude to King *Henry* the Seventh, who was worthily counted the wisest and most peaceable King in all *Europe* of that Age. To himself (for the Wisest will flatter themselves sometimes) because he was not only a chief Counsellor to this King, and had been his Ambassadour to conclude a most Honourable Peace with *Charles* the Eighth, who paid, as *Holinshead* writeth, 745 Ducats, besides a yearly Tribute of 25000 Crowns, but also he carried both the *Olive*

* *Br. View*, &c. p. 101, 102, 103.

and *King* in his Name ; and therefore thought he was specially designed for this Church-Work, to the Advancement of which, he had an extraordinary Inclination. Thus, though (as *St. Thomas of Aquin* well noteth) all Dreams, be they never so sensible, will be found to halt in some Part of their Coherence ; yet most certain it is for the Time, he was so transported with his Dream, that he presently set in Hand with this Church, and at the West End thereof he caused a Representation to be graved of this Vision of the Trinity, the Angels and the Ladder ; and on the North Side the Olive and Crown, with certain *French* Words (which I could not read) but in *English* is this Verse taken out of the Book of *Judges*, Chap. 9.

*Trees going to chese their King,
Said, Be to us the Olive King.*

All which is so curiously cut and carved, as in the West Part of *England* is no better Work than in the West End of this poor Church. And to make the Credit of all this more authentick, he added this Word to it, *De sursum est. It is from on high.* Thus much the Stones and Walls (though dumb Witnesses, yet credible) do plainly testify.

Thus far that Learned Knight, and Great Well-wisher to this Church ; where it may be noted, that the Olive and Crown are on both Sides of the Church, North and South, with an Elephant on each Side of the Olive crown'd ; and the Words *Sir John* says he could not read, are not *French*, but *Latin*, being the old Translation of the *English* writ on both Pillars, of either Side, in
good

good Text Hand, though now not so legible, above the *English* in this Manner :

*Ierunt ligna ut ungerent super se Regem,
Dixeruntque, Olive Impera nobis.*

Trees going to chese their King,
Said, Be to us the *Oliver King*.

Which gave Occasion to some in the late Times to take it for a Prophecy, but was intended nothing more than to preserve the Memory of the Bishop that was Founder.



C H A P. XII.

Of the BATHS of BATH.

CONCERNING the Nature, Use and Virtues of the Baths, I purpose, if God permit, to write a large and particular Account, in a Just Treatise on that Subject, consonant to my own Principles, which for the greater Credit of this Nation and Place (nothing having ever been before attempted in this kind) shall be in the general Language; the Design of which I have expressed Chap. 7. For I well remember what I writ in my Appendix, Seven Years ago, in these Words: *I come now to speak something of the Nature, Use and Virtues of the Baths. And bere it cannot be expected I should say much, because my*
Expe-

Experience of them as yet hath been but little, and the Observations I have made seem fitter, as they are intended, for a Foundation to a greater Work, which Time and Variety of Experiments must compleat, than at present to be communicated to the Publick. And to make some Compensation for my Brevity in this Thing, which is justly deemed the most Material of all other, I shall take the Boldness to engage, as soon as Time and Opportunity shall permit, to make a thorough Search into the Cause of the Heat, Nature, and Efficacious Operations of the Baths, and perhaps give a more satisfactory Account of the former, than hath yet been given by any; and for the latter, I shall not build on the Hay and Stubble of the Talk and Relations of Persons byass'd and concern'd, but on the solid Basis of Reason, Observation, and Experience. And again, the last Words: But I hope I may be excused on the Score of my former Engagement, if I am not more particular at this Time in Things of this Nature, 'till a just Amassment of Observations and Experiments, and a rational Deduction of Conclusions from them, which I hope in some time to accomplish, shall either confirm me in the Opinion I now have of the Nature and Virtues of the Baths of Bath, or supply me with a better.

Having, I say, intended a Piece of this Nature, and also published many Particulars relating to this Affair, in the ensuing Century of Observations, which I now make publick as a Specimen of my Way of Procedure, and Ground-work or Foundation of my next Superstructure, I shall content my self at present with some few Remarks.

The Baths, then, in some Things do agree ; in others are different.

They agree in this, That though chiefly three in Number, the King's, Cross, and Hot (the Queen's being but an Appendant to the King's, as the Lepers to the Hot) yet they all participate of the same Minerals, only the Hot Bath, if some of my Observations hold, hath something more than the King's, or Cross, both which, as to the Particulars, and particular Proportions in a Hogshead, Gallon, and Pint, are much the same, and what is defective in one Ingredient in one Bath, is made up by another in the other. So that herein the wonderful Contrivance of the Almighty hath appeared, in making so fine a Composition of such various Ingredients, and acted (with Reverence be it spoken) not only the Physician, but the Apothecary too ; a good Example and Precedent for his Creatures to follow, who have lived to see that unhappy Day, wherein a blear-ey'd *Leah* hath been advanc'd, though with Shame and Destruction too, above a legitimate *Rachel*.

They differ chiefly in Dimension, and Degree of Heat.

In Dimension ; The King's Bath being 57 Foot, or 19 Yards, 10 Inches, long ; 40 Foot, 8 Inches, or 13 Yards $\frac{1}{2}$ and 2 Inches in Breadth.

The Queen's, 8 Yards, or 24 Foot, 2 Inches, in Breadth ; in Length 25 Foot, 4 Inches ; or 8 Yards, 16 Inches.

The Cross Bath, 24 Foot, or 8 Yards, 6 Inches long ; 19 Foot 11 Inches, or 6 Yards $\frac{1}{2}$ and 5 Inches over Northward ; 12 Foot, or 4 Yards, 7 Inches over on the South.

The

The Hot Bath, 10 Yards 8 Inches $\frac{1}{2}$ long; 4 Yards 13 Inches $\frac{1}{2}$ broad South; 4 Yards $\frac{1}{2}$ and 5 Inches over North.

From this undeniably is deduc'd, that they differ in the Water they contain; for being of different Dimensions, the greater must hold more, and the lesser less. To pursue this Curiosity a little further, I find by Gage, the King's Bath being 1 Yard 18 Inches in Water, to contain Three hundred and Fourteen Tun, Thirty-six Gallons.

The Queen's Eighty-one Tun, three Hogsheads, and eleven Gallons.

The Cross, Fifty-three Tun, and Forty-seven Gallons.

The Hot Fifty-four Tun, and Twenty-seven Gallons.

As to the Difference arising from the Degree of Heat, though I must acknowledge my Defect of Observations in that kind, which I will hereafter supply, yet I may say thus much now, That the King's and Hot Baths are not more different in that Particular than the Queen's, and Cross, and that this latter is the most temperate of all.

And here it may be noted, That what is written concerning the Difference in Degree of Heat in the Baths, is so to be understood as esteemed now; for the Hot Bath was formerly accounted the Hottest of all, whence it had its Name, *κατ' ἐξοχήν*, the rest being ever, and so reputed, Hot, though in some Degrees inferior to that. Hence *Jones* says, From what he there deliver'd, the Reason may be gather'd why some of the Waters of Baths break out most Hot, as the Hot Bath at *Bath*; others meanly Hot, as the Cross Bath;

Bath; others between both, as the King's Bath. And in another Place; The King's Bath is Hot between both the other. But of this I intend, God willing, to make further Tryals.

The Cause of this Variation I conceive to be not an Intention, and Remission of a subterranean Fire, (which meeting with an Enemy that hath had so many Recruits and Reinforcements as the Water hath, and will have till the End of all Things, 'tis much should yet keep its Ground, and not be extinct, to mention no other Absurdities at present, that undeniably follow on that *Hypothesis*, this Variation, I conceive, doth not arise on that score) but rather is caused by a greater or lesser Fermentation, arising from the Acting of an Acid of an Alcalizate Salt, both which are contained in the Bath, and much assisted by the vast Quantity of an impalpable Powder, the greatest Ingredient in the Waters, and seems to serve for no other End, except what shall be hereafter mentioned, to administer a perpetual Supply to the Fermentation.

'Tis likewise observable, That where the greatest Heat is, as in the King's, and Hot Bath, there is the greatest Quantity of this fermentative Matter, insomuch as I have calculated, that near 50 Pound Weight goes off in little more than 24 Hours in the King's; but in the Cross Bath, where less Need is, there is less of this gritty Matter, and much less goes off in a longer Time. So that having sometime resembled this Fermentation to Generation, the Father of it being an acid saline Spirit, and the Mother this gritty Matter and Alcalizate Salt, the Conjunction made, and the Thing produc'd, the Father slips away invisibly in a Mist of Steam, and the Mother

ther passes out at a Back-Door as soon as may be, resigning the Work to be successively promoted in the same Manner, to future Generations. And indeed, should the Matter still continue that hath done its Work, the Springs and Channels would be quickly obstructed, so that what is Acid being of light Burden, and more active, quickly exhales, and the more Corpulent passeth off by convenient Slaices and Draughts, as an Excrement, upon which the Wheel of Fermentation is kept continually going, by an immediate Succession of new Matter of the same kind. That not only the acid Part, but the more fix'd Salts also do in Part exhale, may be found confirmed by the 88th Observation, which cannot but part with Something of their Substance in the *Luxta* of Fermentation.

Again, In some Places where the Fermentation is less, as in the Water of *St. Vincent's Rock* near *Bristol*, which hath not half the Heat that the *Cross-Bath* hath, the Water abates near the Proportion in the Quantity of Ingredients; and although for the most Part the same, yet in so small a Proportion, cannot act as a greater Quantity would do, and the Acidity being so little as scarce to coagulate Milk, or turn with Galls, may not be expected to do Wonders in a Fermentation.

To conceive a Continuation of the Hot Waters of *Bath* to that of *Bristol*, by Way of Drein, as some ingenious Persons have imagin'd, is unphilosophical. For if very Salt Water becomes insipid by running but the tenth Part of that Course under Ground, how can it rationally be expected that any Salt should be left of that little in the Bath here, after such a tedious Journey, in which

it may haply meet with many fresh Subterranean Passengers in cross Roads, that may intrude upon it, and, by mixing with it, rob it long before both of its Saltness and Heat.

I must therefore say here, what I shall further discourse of more at large in another Place, That since my first Consideration of this Matter, I was ever inclin'd to believe, that the Cause of the Heat and Impregnation of the Baths was not far off from the Baths themselves, (*Coram adest quod quarimus*) for to me it seems not a little strange, that on digging so many Wells, Stone-quarries, Cole-pits, and other Penetrations of the Earth, to a considerable Depth, that have been made about the City, no Hot Water should appear, but only in one Stone-quarry near *Dunkerton* about an hundred Years ago, mentioned by *Jones* * to have been so hot, that they were fain to forbear Working: The Truth of which Relation I somewhat question, and rather believe the honest *Cambro-Briton*, being a Stranger here, might the easier be imposed on by some fabulous Relator.

Another Argument for a different Fermentation I take to be the different Forms of Shooting of the nitrous Stiria's; otherwise, why should the King's and Hot-Bath, that have the strongest Heat, shoot into more compact Needles, and much thicker than the Cross? but that the stronger Fermentation ripens, and invigorates better the Crude Matter of the Shoots, when the

* *Baths Aid.* lib. 2. fol. 20.

other, not so strong, leaves the Matter crude and weak.

Before I give a rough Draught of my own Hypothesis, which I only here propose, and shall further, God willing; illustrate and polish in my next Undertaking, I must premise these few Particulars; which in part contain a Survey of this Country.

First, That the Ground on which the City of Bath in good Part stands, especially near the Baths, is raised Ground, and that, probably, under some Yards of Gravel is a Bog, made by the Confluence of Waters hither. This seems in good Measure evident from this, That on the digging some Foundations not long since, the Workmen came at last to a soft Mud, which yielding much, and a Soldier's Pike of a good length thrust into it, no Bottom was discovered, but a warm, marly, sulphurous Mud adhering to the Pike. This was observed in the North and South-West Parts of the Town.

Secondly, That the Springs of Cold Water about this Place are very numerous, insomuch that some time since, having been desired by that Ingenious and Learned Knight, Sir *Anthony Morgan*, since dead in *France*, to search what Springs I could find hereabouts; in order to the making several Mixtures, if that Way we might give any Light to a Fermentation; I remember I brought Water from Twenty-two several Springs, and might have done from as many more, within Two Miles Compass on one side.

Thirdly, That the Two Water-Houses supplying the City, are placed on Two Hills, one on the North, and another on the South, for the

more convenient Supply of the Whole with Water.

Fourthly, That the Bowels of the Earth on the South of the Town, with the South-East and South-West Parts, for Four or Five Miles Compass, are sufficiently replenish'd with great Plenty of Freestone, which supplies the Country round about with good Materials for Building, and would do many Counties more, were there a Way agreed upon for its better Conveyance.

Fifthly, That on the North Part of the Town, little or none of this Freestone is digged, but Water arises in Abundance; and on the Hills about *Marshfield*, some Marcasites have been found, of which Vitriol is made, and probably more of that Kind are contained in that Ground. I mean not the White Marcasite found on *Lansdown*: What that was, is notoriously known.

Sixthly, That another Sort of Earth that abounds about Bath, is Blue Marle and Ochre. This is discovered almost in all Sides of Deep Hollow Ways, the River Sides; and particularly at *Lambridge*, a Mile off, is a Blue Marly Slate, with Ochre sticking to it, and under that, clear Ochre alone. And,

Seventhly, That almost all Things about the Bath, as Marle, Ochre, Freestone, Sand, Mud, Scum, Shells, and Salts, will ferment on the Affusion of any Acid.

These Things premised, I proceed to my Conjecture concerning the Rise, Continuation, and Heat of the Baths, and Man can do no more; for *Μάνης ἀπίστος ὅστις εἰργάζεται χαλῶς*, the best Prophecy, is but a good Guess.

I conceive then, that the Salts and Marle with the Conflux of Waters into this Compass of lower Ground, being created in the Beginning, and then placed under or near where the Baths now stand, by the Virtue of those Words, *פָּרַר וּרְבַר*, *increase and multiply*, have increased ever since from their own Seeds, in their proper Seminaries, as the greatest Part of the Creation doth and ever will, till the Consummation of all Things. Neither do I see much more Reason to admire the Breeding and Increase of those Minerals under Ground, than the perpetual Springing and inexhaustible Growth of the little Spires of Grass we tread on above it: But it ever was and will be the Humour of the Generality of Mankind to overlook what's before them, and pay their Admiration to what they do not see, it faring with many other Things as with Virtue in the Poet.

——— *Præsentem odimus
Sublatam ex oculis querimus invidi.*

Virtue remov'd we dote on; present slight:
And Darkness thus prefer before the Light.

The Salts being here sufficiently fix'd, two large Currents of Water may come down upon them, and meet very near or under the Baths themselves; the one from the *South*, bringing with it its *Cargo* of Freestone, the Commodity, as was said, of that Part of the Country; the other from the *North*, acuated by some Vitrioline Marcasites, over which it may pass, and meeting near the Place with all this Matter that is fermentative, a Fermentation may arise sufficiently productive of what Heat we find; considering especially the Closeness of the Caverns of the Earth in which it

is bred, where little Air can abate it, but rather by that Advantage, reduplicate the Heat.

Much to this purpose are the Words of that Ingenious and Learned Physician Dr. Sherley, whose Philosophical Essay came late to my Hands, and some considerable Time after I had framed, and in these Words written, my own Hypothesis; yet in regard some Coincidencies, though at this Distance, and without any Converse, have happen'd, which may confirm and illustrate what is before discoursed, I shall, by his Permission, crave leave to say, That if the Words I now recite be understood of the Bath-waters, as he intended them of Water in general, the Duration and Equality of these Waters will be better understood, and found to be according as I have before asserted. He therefore saith in the beginning of the eighth Section of this Philosophical Essay, p. 112. *In the Beginning God infused into the Bosom of the Waters the Seeds of all those Things that were afterwards to be made out of the Waters, setting them their constant Rules and Laws of acting, and by the Power of the Words, Increase and Multiply, they had a Faculty given them to continue themselves in the same Order till the World shall be destroyed by Fire; at which Time all Seminal Beings shall desert their gross Bodies, and return to their first Fountain and grand Exemplar, GOD, on whom they have at this Time a constant Dependance.*

This I am apt to believe might be made demonstrative, if digging about the Baths might be admitted and practis'd without Prejudice to the Springs, which, 'tis feared, will ensue; and therefore I must be content with that kind of Demonstration, which Art will afford in Imitation of Nature; some of which I could now propose; but I
will

will not prevent my self in Things of this Nature, and therefore shall end this Subject for the present with these Two Remarks:

First, That the Baths having the same Minerals, and but little differing in Proportion neither, must be equally advantagious in the same Distempers, but with this Difference, that the different Degrees of Heat altering somewhat the Case, Judgment must advise what Bath the Patient shall be committed to; how long it may be convenient to stay, and what Government is to be used more in one Bath than another, besides the Determination of the Distemper 'tis proper to relieve.

And, *Secondly*, Whereas great Discourse hath arisen here concerning the Conveyance of some Nuts that were observed in the Cistern over the main Spring of the King's Bath, upon the Alteration of a firm Stone Cross in the Middle, to that pretty Wooden Device that now stands there; some whereof were black and rotten, others fresh with their Kernels in them, and some with Shales very green about them: The way of Passage may be conceived to have been by the Currents of Cold Water from an open Spring, if not the River, near a Coppice or Wood-side, with which the Water of the Bath may in part be supply'd, the Bath being, as I suppose, the great Exchequer, into which the lesser Rivulets do return their Tribute, and to which they pay their Homage, as to their Liege Lord and Sovereign, constituted such by Him by whom Kings reign, and from whom alone they receive their Scepters. That these Nuts could not come, by a nearer Cut, from the Bath-side, is most evident from this, That the Cistern was so well plaister'd about with Plaister of equal Hardness with a Stone, that it cost very many Blows to get

it up; presently from the Rise of which the Nuts did appear, immediately shot up from the Springs themselves.

As to the Internal Use of the Waters, so much of late applauded, and not without Cause; as a grave * Physician, sometime of this Place, hath in his Writings condemned that the Reason of which he never understood; so would not I on the contrary give my Vote for that which I had not thoroughly examin'd, and on good Grounds judged and found advantageous.

It being therefore clear, that Vitrioline, Nitrous, and Saline Springs, are recommended by the most Intelligent Writers to be used as a Drink; and the forementioned Salts, the two latter fix'd and visible to the Eye, the former more invisible, transient and halituous, being contained in the Waters, I may conclude them by good Consequence to be potable and most proper to be drank. Neither is the Heat offensive, but amicable to the Stomach, and doth not of it self, unless Ingurgitation procure it, incline to Vomit. But because the drinking of the Waters hath so much obtain'd, I have the more particularly discours'd of that in the two following Chapters.

* *Dr. Venner Tr. of Bath*, p. 12.





C H A P. XIII.

Of the Use of the Bath-Water in Potion.

HAVING in the Close of the former Chapter debated and determin'd in short the Question, Whether the Bath-water may be safely used inwardly, and on good Grounds carried it in the Affirmative; the next Thing I am to proceed to, is, The Manner how, and what Course is to be taken by those that would use it so as to find Benefit thereby. But before I treat of this, I shall enervate one grand Objection, and then give some preparatory Directions for the better Information and greater Benefit of the Patient.

An O B J E C T I O N.

It may then be said, That the Bath-Water, according to present Discoveries, containing those Ingredients that may be prejudicial to the Body, the Use of them in Potion may not seem to be safe, and the best way to decry the internal Use, is to Anatomize their Body, and declare their Contents; some of which being gritty, and of a Lapidaceous Nature, may obstruct the mesentery milky Veins, and other Passages, and conduce much to the heaping up a fabulous Matter in the Body, and thereby give Occasion to the intolerable Excruciations of the Stone and Gout, besides the Foundati-
on

on it may lay for other Distempers; others being of a relaxing and effeminating Nature, may have no good Effect and Influence upon the Nervous Parts, especially the Stomach and Intestines, through which they pass; and therefore this Use of the Waters seems rather to be avoided, and the Inconveniencies arising in probability from some Parts *Non-saline*, may be thought much to overbear the Advantages expected from the Salts.

The ANSWER.

To this, I think the Substance of all that can be objected, I return this Answer.

That the supposed Culpable Parts in and about the Contents of the Bath-water, being only Three, Grit, Bitumen and Sulphur, the former, though in the greatest Proportion, is so finely wrought and intimately mix'd with the Body of the Waters, that in Truth it cannot deserve that Name, and therefore I call it so in relation to the more brown and gritty, appearing on Evaporation, † as I have elsewhere observ'd; This then in the Waters that are drank, being soft and impalpable, and no Magistery more finely pulveriz'd, must pass in Conjunction with the Water through all its Meanders; neither is the Stay usually so long in the Body, as to occasion any fear of a Separation, which probably may be if they pass not well, and therein chiefly, I suppose, to lie the Danger, the natural Heat being not so violent, but of a more moderate and even Tenor, and too weak to make an Analysis of the Water in so short a Time, or dissolve its

† *Observ.* 83.

Body, as the Fire doth, but having discharged its Office, is discharged also by the usual Ways of Evacuation, if the Water stay not in the Body too long.

Besides, The Benefit of this insipid Magistery may not be a little; for if the Acrimony of the Blood be abated, and sharp Humours allay'd, mitigated and dulcify'd, as the Experience of many Persons the two Summers last past especially seem to testify; I know nothing else in the Waters I can attribute this Effect with greater Justice to, than this impalpable Powder, which like Coral and Pearls, being in themselves gritty and insipid, are known to produce the same Effects without Prejudice to the Body, by imbibing the Acrimony, or altering the Property of those Humours they are found to allay. I confess indeed, some Expectation might in Reason be of a Fermentation within, as by the Means of this Powder, in good part, there probably hath been without in the Waters themselves, according to my Hypothesis mentioned in the former Chapter, if the Powder were separated and immediately mixed with acid in the Bowels, Stomach, Spleen, or elsewhere, upon which, Eructations, Inflations, and other Inconveniences might ensue; but the Water passing quickly off, and there being not that constant Supply as underground, nor proportionable Acids neither, as may be there, no such ill Effects can reasonably be fear'd, nor yet have been observ'd.

As to *Bitumen*, either Liquid or Solid, the first of which is chiefly condemned by Mineral Writers, no Inconvenience can arise from that, in regard I do not conceive it mixed, or indeed capable of mixing with the Body of the Waters, but is at
some

some certain times eructed from the Springs, chiefly in the Months of *June, July* and *August*, it ascends, being driven through the Waters, without Mixture, to the Surface, and there remains as a Scum, which taken off and dried, burns like Stone-pitch, and is § noted elsewhere: So that the Quantity being inconsiderable to any other of the Minerals, and the Times of breeding and appearing not constant, with an Incapacity of mixing with the Body of the Waters, otherwise certainly it would not ascend and float on the Surface as we find it doth: These things, I say, considered, I cannot but think it strange, the Learned Dr. *Jorden* should assert these Baths to be Bituminous *à prædominio*, or consist principally of Bitumen, which I shall hereafter make appear to be but a less principal Principle, and rather an Appurtenance to, than an Ingredient in the Waters. So much also I must further say, That the Swimming of a Bituminous Substance on the Surface of the Waters; the shrivelling of the Tops of the Fingers in the Bath; and the bare Smell of Sulphur by the Bath's-side; are no Masculine Foundations for asserting those Principles, and making That the greatest Ingredient in the Waters, that is not capable of mixing with them.

Whereas *Sulphur* (the third Ingredient of Dr. *Jorden* || and least proportionable, affirming the Baths to consist principally of Bitumen, with Nitre and some Sulphur) is in much greater Proportion than the Bitumen mentioned but now, and contains, I judge, near a fourth Part of the coarser Contents, the Result of Evaporation, for

§ See *Obs.* 100. || N. B. *Ch.* 16, p. 150.

so much or thereabouts is lost in Calcination; this, I say, though much in Quantity, cannot relax or effeminate, either by Fattiness or otherwise, as some Authors pretend; for, whatever it may have of that, tis certainly so much alter'd by the other Ingredients into whose Bosom it is taken, and to which it is so nearly united, that nothing of that Nature doth appear at any Time, and is in nothing discovered more than its Inflammability. We ought therefore here to expect the known Virtues and Benefits of Sulphur, to befriend the Lungs, to comfort and cherish weak Parts, and do all those good Offices we experience in a Composition though made of many Things besides, rather than to imagine the Water of the Fountain * *Salmacis*, to be continued hither, or be frightened with any *Sardanapalian* Nature in Sulphur, which may create Inconveniencies we know not what. But if any Person, notwithstanding what hath been said to the contrary, may be in some Suspicion of any Nocumment from the Sulphur, he may have a Salt made out of the Waters to be dissolved in it, in which Sulphur is not concern'd, and so the Waters may be drank in lesser Proportion.

Having therefore combated these Three supposed Enemies to the Water's inward Use, and found them weak and insufficient to maintain the Opposition they pretend to, the greater Confirmation will accrue from the Consideration of the

* *Salmacis, fons Cariae limpidissimus, juxta Halicarnassium; eo nomine cum male audiens quod lavantium in eo, aut ex eo bibentium corpora effeminaret. Stephanus.*

three-fold Encouragement arising from the Mixture of the triple Salt, Nitre, Salt and Vitriol; the further Enlargement on which I shall at present forbear, and now give some few Directions for the Patient's Benefit I mentioned before.

The first of which is, That 'tis very necessary the Body be well prepared before the Waters be taken, and consequently that good Advice be had whether it be proper or no; for the inconsiderate Use of any Thing must be very prejudicial; and the best Reason why many Effects are not produc'd, is because in Reason they could not be expected. This Preparation must be made, not slightly with a little Bath-water and Salt, Syrup of Roses, and Manna, and such like alimentary Medicines, but with proper, effectual, and frequent Purgations, as the knowing Physician will think requisite sometimes. For what Impurities are *in primis viis*, the Stomach, Intestines, &c. will certainly with the Current be carried further into the Body, defile the Blood, and thereby create an Iliad of Evils; whereas if the Body be well prepar'd, the Water hath besides a cleaner Passage, a more free one too, unto the Parts it must relieve.

'Tis also less Beneficial for the Patient to drink the Water in the Bath, and contrary to the Rules and Directions of intelligent Physicians; but if Thirst be troublesome, somewhat may be taken to allay that, and half an Hour before Rising, a Quantity may be drank, and the rest in Bed, if Occasion shall require; otherwise to set aside some Time for Drinking alone, and never, during that Time, to use the Bath at all, is what may give both Uses due Liberty to exert their Operations, and not cramp or supplant
one

one another, as they often do when made Use of together.

It is likewise requisite that a good Course of Diet be observed in the Use of the Waters, both as to Meat and Drink; that Dinner be of Meats of light and easy Digestion, at Twelve or One a Clock, when the Waters have made a considerable Pass; and that Supper be in good Time, that the Body may be clear against the next Morning again.

The best Time for Drinking, is in the Morning early, from the Pump, at the Place itself, if it may be, otherwise, if near, at Home, very warm, with a Quarter of an Hour's Walking after every Pint or Quart, at utmost; arising from Three to Six Pints, Four to Eight, or Five to Ten, as the Body will bear, for no set Gage can be given; and the best Rule is, That it ought to be taken *pro Tolerantia*, every one as they are able to bear, without Ingurgitation, or relucting again. The Number of Days, 7, 14, 21, or a Month, after which Time I have observ'd the like Effects not to be produc'd, as in the intermediate Space, and therefore none ought to use it longer at one Season.

But these Things, and many more of this Nature, shall be further discuss'd, and the whole Circuit of the Way of Drinking gone thro', and comprehended, in the Solution of the following Questions, which I shall only here propound.

Question

Question I.

Whether the Bath-water ought to be drank Hot, or Cold?

Quest. II.

Whether in a great or little Quantity?

Quest. III.

Whether it may be drank at Meals?

Quest. IV.

Whether Bathing and Drinking may be done on the same Day?

Quest. V.

Whether Drinking may be in the Morning, and Bathing in the Evening of the same Day?

Quest. VI.

Whether the Bath-water ought to be taken many Days together, or else some Days to Bathe, and others to Drink?

Quest. VII.

Whether large Draughts may be taken, or more moderate; and what Time is required should be between the Draughts?

Quest.

Quest. VIII.

How many Days it is convenient the Bath-water should be drank?

Quest. IX.

Whether any Medicines may be usefully taken with the Waters, to further their Operation?

Quest. X.

What Times of the Year are most proper to Drink it in?

Quest. XI.

Whether the Bath-water may be taken in Winter?

Quest. XII.

Whether the Leap-year hath any malign Influence on drinking the Waters?

Quest. XIII.

Whether the Waters may be safely used in the Dog-days?

Quest. XIV.

Which is first to be done, either Bathing, or Drinking?

To give a greater Security and Credit to the Drinking these Waters, with which I shall conclude this Chapter, it may be noted, That, besides the common Discourse of Things within the

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Memory

Memory of Man, the Bath-water hath been ordered to be drank above an hundred Years ago ; for I find in a * Physician that writ concerning them, A. D. 1572. among other Things these Directions:

About an Hour after Sun-rising in the Morning, drink the Water out of the Spring ; the Body afore purged, the Digestion fulfilled, and the Bath first cleansed, remaining clean six Hours before.

So much of the Water as shall not be grievous to the Stomach may be drank.

The Water being drank, the Patient must walk gently a few Paces in a temperate Air.

By which it appears, how careful they were then of preparing the Body, and having the Water pure, which ought not to be less regarded now ; otherwise the Danger will be more, and the Benefit less, according to the right or wrong Use of the Waters. That this was discontinued, no better Reason, I think, can be given, than the Humour of the Times, to which also a want of a due Method in Drinking, and a true Understanding of the Nature of the Waters, may much conduce.

* *Jon. Bath. Aide. lib. 4. fol. 28.*





C H A P. XIV.

*Of the Virtues of the BATH-WATER
taken Inwardly.*

THAT the Water, and consequently the Salt extracted from it, and dissolved in it, may not be defrauded of their just Commendation internally used by Way of Potion, as well as by Bathing, or Lotion, outwardly, and that it may be rightly made Use of in a due Way and Manner, without expecting more from it than in Reason is to be done; I shall give a short Account of the Distempers in which it may be profitable, and used with Advantage.

And first, in General, I conceive it very proper in all Diseases or Symptoms, that require cooling, cleansing, opening, or gentle Evacuation; under which Heads are comprehended many Maladies, which I shall but briefly touch on, and leave the fuller Discovery of its Virtues to Experience, and a longer Use.

I shall begin with the Stomach, both in regard it is the Part it first descends into, and also, because in righting that, it is a general Benefactor to the whole Body; the Use of the Stomach being of absolute Necessity to every Part, without which there can be no Supply.

It must therefore infallibly cleanse this useful Receptacle from any Impurities lodging in the Bottom or Plicatures thereof, (which may render what is taken in more foul) and prepare it the better for Digestion of the Food, on which depends the Maintenance of the lesser Universe, conducing much this Way to the making better Chyle, purer Blood, and more clear and active Spirits, the Wheels and Machines of all Sense and Motion.

The next Advantage is, That it procures an Appetite, and makes those that drink it receive and enjoy their Food with more Delight and Satisfaction. This is generally known to all that use it, and is effected partly by removing what lines the inner Coat of the Stomach with too much Viscosity, with which the Fibres and nervous Filaments, the Organs of Sensation, are obstructed; partly by an esurine Quality residing in the Salt, provoking the Desire of Sustenance, which we call Hunger, by its immediate Application to the Parts mentioned before. And in this esurine Quality it doth exceed common Water, of which *Hippocrates* hath written, That it makes Men hungry; viz. by its washing and cleansing the Stomach, as is declared before; but this by the Mixture of the Salt, is made more effectual.

A third Convenience is, That it allays Thirst, which is often very troublesome, and sometimes dangerous to take in Liquors to suppress it, that may create farther Disturbances in the Body, and prove more offensive; whereas this, by its cooling and moistening Nature, is the best Remedy that can be provided, and that in no great Pro-

Proportion neither, as hath been often experimented.

It is also of good Use in the Heart-burning, or *Cardialgia*, occasioned by the Sharpness and Acrimony of a bilious Humour, vellicating the Nerves and Membranes of the upper Orifice of the Stomach, called by the Ancients, by Reason of its great Communication therewith, the Heart; which sharp and acrimonious Humour it alters, washes off, and at last evacuates, upon which the Passion ceaseth, and Ease doth ensue.

Also it clears by its immediate Passage out of the Stomach, (for some Water, I suppose, doth pass that Way) whatever Obstructions are found in the Vessels about the Stomach, relating either to that or the Caul, arising from the *Vena Porta*, and known commonly among Anatomists by the hard Names of *Venæ Gastricæ*, *Epiplociæ*, and *Gastro-Epiplociæ*, conveying what is transmitted from the Celiac Artery to the Liver, and so by the *Vena Cava*, to the Heart, according to the undoubted and establish'd Doctrine of the Circulation.

Moreover, It is of singular Use in all Fluxes, whether with Blood, or without; Diarrhea's, Dysenteries, or bloody Urine; not that it hath any strong astringent Quality, which oftentimes is prejudicial, but by its absterging and cleansing Virtue, and gently evacuative withal, it allays Acrimony, sweeps away pungent Particles, and discharges them by the Draught. However, if astringent Medicines shall at any Time be judged necessary, the Cure will be facilitated, and more speedily performed, if the Water be drank, or used by Clyster, or both Ways made Use of,

before they are advised, which will be a good Preparatory to other Remedies.

It is also good in the Cholick, on the Account before specified, and with the Addition of its Heat; insomuch that those that drink the Bath-water, are observed to break more Wind than other People, and find great Relief in that Case.

It is proper also in the Distemper that is commonly, though improperly, called the Heat of the Liver, when the Face is red, pimpled, and the Body afflicted with cholerick and pustulous Eruptions, having its Foundation in the Blood, which the Water attemperates, and brings down to a just Degree, proportionable to the natural and balsamick Temper of its prime Composure.

It opens likewise the Obstructions of the Liver, Spleen and Gall, and is therefore proper in the Spleen, so far as it ariseth from that Cause, and not improper, but very advantagious, in the Scurvy, Jaundice, and Obstructions of the Mesentery, which if the Waters pass, must be much Advantage to the Body; in regard there most commonly lies the *Sentina Corporis*, or Sink of the whole, which is cleansed this Way, as the Sewers in *Bristol*, by *St. David's Flood*.

It is also very Beneficial, if moderately taken, in the Gravel of the Kidneys, or any Gravel or Phlegm obstructing them, or the Ureters, which it undeniably cleanseth, and prevents Concretions, which may afterwards terminate in Tophes, and Stones; so that 'tis a good Preservative against the Stone, and will dissolve what is not too firmly impacted, which may be discovered, if the Water pass not freely that Way.

It is also of incomparable Use in the *Diabetes*, or pissing Disease, which is usually attended with a great Drought, which it allays above any Thing; and, the Quantity moderated for fear of pissing too much, produces great Effects, as hath been experienced of late by a Person of Honour.

I doubt not also to commend it in the Dropsy, but Care must be taken that it pass well away, otherwise it may prove more prejudicial than advantageous. The like also may be said of the Gout.

'Tis Beneficial likewise in the Whites in Women, and, what is somewhat consequential, prepares them for Conception; so that in some kinds of Barrenness, no more effectual Medicine can be used. *Plinius dicit, Aquarum aliquas sterilitatem fœminarum abolere, & conceptus ipsis representare, sicut Sinuessanas in Campania; Thespiarum fontis in Bœotia; Elati fluminis in Arcadia; qui effectus significant hujusmodi Aquas esse Nitrosas: Etenim hæc vulvam, quoniam eam abstergunt, Conceptioni faciunt habilem, saith Georg. Agricola.* And again, a little after, * *Nitrosæ vulvam ad Concipiendum aptam faciunt. Nitrous Waters dispose the Matrix to Conception.* So that I question not but that outwardly and inwardly used, but chiefly the latter, these Waters are very advantageous in that Condition.

The inward Use is also very profitable in all Foulness of the Blood, the Itch, Scabs, Leprosy, and the Worms.

* *De Nit. Ior. quæ efflex Terra, lib. 2.*

For the Distempers of the Head it may be less useful, being somewhat remote, yet in many not prejudicial, for the fore-quoted Author says, speaking of Nitrous Waters; *Capita, succis frigidis qui mentem obtundunt, repleta exiccantes & roborantes, tandem mentem denuo acuere, & sanitati restituere possunt.* Those Heads that are filled with cold Humours, which dull the Mind, Nitrous Waters by their drying and corroborating Faculty, do relieve; and sharpening the Understanding, restore to perfect Health. Yet in regard this may be referred to the general Head of Obstructions, as before, I shall say no more at this Time of the Virtues of the Water in particular: only add what Kircher says of Nitrous Waters in his Chapter of that Subject: * *When Nitre is predominant, it makes the Water that hath imbib'd it Powerful in Operation; enables it to correct an ill Habit of Body, which such as are phlegmatick are prone to; it looses the Belly; is good in the Diseases of the Nerves, and for such as are subject to Defluxions upon the Lungs; heals the Itch, and other Diseases of the Skin; cures the Ringing of the Ears, dropt into them; and, in a Word, makes it to be of an eminent absterging Property.* Where it may be noted, That whereas this Author affirms Nitrous Waters to be good for such as are subject to Defluxions upon the Lungs, and consequently for those that are weakned by a consumptive Disposition, in extenuated Persons; it is easy to determine to which of the Minerals

* *These Virtues are proportionably in all Nitrous Waters, according as they more or less participate of that Mineral.*

chiefly we may attribute that great Advantage an eminent Chirurgion of this Nation hath lately found by Drinking the Waters, who from a thin Body and hoarse Voice, hath now recover'd a plump Corpulency, clear Speech, and good Habit of Body and Lungs to the great Credit and Reputation of the Water.

For the Satisfaction of those that desire to know which Way the Water comes to the Kidneys and Bladder, whereby they may somewhat judge of the Usefulness of the Water, and true Extent of its Operation ; I shall briefly, for a Close, discourse of that.

The Drink, or Water, which descends into the Stomach by the Gullet, passes thence, either immediately by the Veins, that have a more immediate Relation to the Stomach, Caul, &c. or mediately by the lower Orifice of the Stomach, called *Pylorus*, into the Guts, whence the most Part passeth by the milky Veins to the *Lumbar Glandules*, or Kernels of the Kidneys, ascribed to the Learned D. *Th. Bartholine*, Professor at *Copenhagen*, as the first Invention, and answering to the Receptacle of Chyle in *Brutes* ; and partly, perhaps, by the *Mesaraicks*, passeth to the Liver. From those *Glandules*, or the Receptacle, some affirm that the potent Matter passeth directly to the Emulgents and Kidneys ; but since this Opinion seems not to be beyond Dispute, as I have noted elsewhere, I shall add no more as to that here, only admit, that the greatest Share of it passes from the Receptacle or *Glandules*, by the milky Veins of the Breast, into the right Ventricle of the Heart, thence, through the Lungs, into the left, then into the great Artery, and so, by the circular Motion of the Blood, is carried
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to the emulgent Arteries, and discharged into the Kidneys, where, by Reason of their Fabrick, aptly accommodated to the Work of Straining, the Serum is separated from the Blood, and drops down by the Ureters, into the Bladder, whence through the *Urethra*, or Passage of the Yard, it again visiteth the open Air, where I shall now leave it, as of no further Use, 'till it come into the Urinal, and meet with some jugling and quacking Physician.



CHAP. XV.

*Of the Water of St. VINCENT's Rock,
near BRISTOL.*

HAVING in the 12th Chapter of this Discourse made some Mention of this Water, as a neighbouring Water to *Bath*, and supposed only a Continuation thither, which I did not think probable on the Reasons there alledged; it will not be altogether improper in this Place to treat a little more largely of that, which hath a Name among the useful Mineral Waters of this Land.

As to the Principles of this Hot-Well Water, as 'tis usually call'd, without which the Reason of the Virtues can never be understood,

stood, they have been variously reported; what I have found on my own Observation, I here declare.

On the Evaporation of two Gallons of the Water, I had $\mathfrak{Z}v$. of the Contents; of which $\mathfrak{Z}iv$. were a reddish ferrugineous Earth, somewhat resembling in Colour an Iron Ore, but in Substance very light and friable, with a Mixture of a Lime-stone: The other \mathfrak{Z} . which the *Lixivium* gave me, evaporated in Glafs, seemed to be Alom, yet in regard the Lime-stone may counterfeit Alom, especially when precipitated, I could not absolutely conclude it to be Aluminous.

To be a little better satisfied, I caused Mr. *Richard Millechape*, an industrious and skilful Apothecary in *Bristol*, to evaporate one Hog-shead of the Water of the Hot-Well, which he did in a Furnace, first, to Three or Four Gallons, afterwards finished it in an evaporating Glafs, and sent me the Contents, which were little wanting of $\mathfrak{Z}v$ ss. Four Ounces of which were on Examination that red, rusty-colour'd Earth, mentioned before, and somewhat, though much less in Quantity, more white.

Upon this *Non-Saline* Part, as I call it, to distinguish it from the *Saline* Part that constitutes the *Lixivium*, being put into a Crucible and calcin'd, I observ'd, That the red Earth was not harder, but more friable, and lost its rusty Colour, becoming more blue; but the white being cold, and mixed with fair Water, did, upon the first Injection, hiss, and afterwards dissolve, leaving the Water white, and a *Limy* Residence in the Bottom of the Vessel I infused.

infused it in; and both white and blue, after Infusion, being dryed again, became very white and Limy.

The other Part being Saline imbibed into a *Lixivium*, I evaporated away to half a Pint, and setting it in a cool Place, found the next Morning it had shot into long small *Stiria's*, much resembling those of the Cross Bath here, to the Quantity of Ziii . The remaining Part of the Liquor that did not shoot, I breath'd away, and had Zi . of another kind of Salt, now under Examination; so that the Saline Part is here much exceeded by the *non-Saline*, to which it seems to bear proportionably not much more than a 5th Part, and to be contained, according to this Estimate, scarce twelve Grains in a Gallon, whereas that of *Bath* hath about forty impure.

To give then a short Account of the Principles of this Water, I judge it to consist of Iron, a Nitro-Sulphureous Salt, and some Lime-stone, according to the Proportions before deliver'd and the Contents Saline, and *non-Saline*, to be, in all, near half as much as in the Waters of *Bath*, where the Salts are a Third, and here a Fifth, or thereabout, as was mentioned before.

That very little of an Acid is contained in these Waters, may appear from this, That neither the cold Water, nor a strong *Lixivium* made of the Salt, will either turn with Galls, or coagulate Milk; neither doth any Thing glebous shew itself among the Shoots I have had yet.

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What the other Salt is, which I have not yet fully examin'd, and tastes much Alkalizate, I do here promise to declare on another Occasion: only for the present, which is all I shall say of the Principles of this Water now, To make it further evident, that this is Lime-stone, after the *non-Saline* Part was well calcin'd, with a strong Fire, in the Water of that I decocted Sulphur, which it did dissolve, and was precipitated with a fetid Smell, both by distill'd Vinegar, Spirit of Vitriol, and Oyl of Tartar, in a considerable Quantity.

This Water then, though participating of the same Salts with the Water of *Bath*, but not in that Proportion, cannot be expected to be as advantageous in the same Distempers, as it is less hot; but containing so much of Iron, hath that Advantage above it, and may be as effectual as *Tunbridge* Waters, in any Diseases that Water is proper for, and, for ought I know, do every way as well.





C H A P. XVI.

Of CASTLE-CARY Water.

THE Mineral Water in *Somersetshire*, commonly known by the Name of *Castle-Cary*, or *Alford-Water*, being of a quick-working Nature, and by some Persons made Use of at *Bath*, deserves also an Examination; which I the rather do here, in regard it may confirm and illustrate what I formerly discours'd of, concerning the Nature and Virtues of the Baths of *Bath*, to which it may be also very subservient.

By Tryals, therefore, according as I had done on the Waters of *Bath* and *Bristol*, I find it to consist of some Parts Saline, some *Non-Saline*. The Saline Part is chiefly Nitrous, Nitre being almost double to the other Salts; and therefore I judge this Water, *Nitrosa à prædominio*; Nitre appearing in a nauseous Taste, apparent Bitterness, cooling, penetrating, and shooting into as long and firm *Stiria's*, as I have ever seen in the *King's*, or *Hot-Baths*.

The other Salt is common Brown Salt, arising, I conceive, from a small Rock or Mine of that Sort of Salt in the Ground about the Spring. This, I said, is little more than half the Proportion of the former, and shews itself in proper Squares or Cubes, peculiar to that Salt, the Nitre shooting first, and this Salt last of all.

The

Ch. XVI. Of Castle-Cary Water. 143

The Parts *Non-Saline*, are likewise double:

First, A Red Grit, arising also from a Rock of that Colour, and is the proper Grit of the Ground; next, the Earth under the Sward, of which I am now to treat a little. The Earth under the Surface of the Ground, is, first, A stiff Blue Marl: under that, A White Clay: and last of all, The Red Rock.

The Earth, The Second Part *Non-Saline* contained in the Water, is chiefly the latter, I mean the White Clay, which, with the Rocky Sediment, makes up near the Proportion of the Brown Salt, or rather somewhat more, the Rock bearing not a Fourth Part to the Clay.

Out of 12 Gallons of this Water, wanting 3 Pints, I had, $\text{℥} 18. \text{℥} \text{vi}$ ss. of the Contents, besides Dross and Scum in the Depuration of the Water, of which $\text{℥} \text{iii}$. Nitre; $\text{℥} \text{i}$, $\text{℥} \text{vi}$. Brown Salt; and $\text{℥} \text{ii}$. Earth and Rock. $\text{℥} \text{iii}$. gr. 30. lost in working; so that $\text{℥} \text{ss}$. of Salt is contained in every Gallon of the Water, or proportionably $\text{℥} \text{ss}$. in every Pint, or between 20 and 30 Grains, of which Two Parts are Nitre, and One Brown Salt.

Note, That out of the Quantity of Water, mentioned before, I had of the pure refined Salt, only $\text{℥} \text{iv}$. 2 Drams, and 40 Grains, in a Gallon; 20 Grains in a Pint.

This Water then, must be of good Use to cool, cleanse, penetrate, and attenuate gross Humours; allay Acrimony; attemperate and suppress undue Fermentation: Good in the Spleen, Scurvy, Jaundice, and all Obstructions of the Mesentery and Bowels, having all those Properties *Kircher* gives of Nitrous Waters, mentioned *Chap. 14*.

It cleanses the Kidneys and Ureters, and is very beneficial in the Stone, moving by Siege, Urine, and Sweat, and that very effectually, in regard the Minerals are so strongly imbibed, which makes it better to be mixed with the Water from the Springs at *Bath*, which, having the same Salts, are less operative, because less impregnated.

And thus having discours'd of Three Mineral Waters by the Salts, the main of their Composition somewhat related, *St. Vincent's Hot-Well*, less impregnated; *Bath*, more; and *Castle-Cary Water*, in the highest Degree; I hope the best Use will be made of them all. And so I take Leave of this Subject for the present, referring the Curious to more Particulars, concerning the principal Part of my Design, to the ensuing *Century of Observations*.



A
CENTURY
OF
OBSERVATIONS:

Containing further

DISCOVERIES

Of the NATURE of the

HOT-WATERS *at* BATH;

With the

Contents, Property, *and* Distinction
of each Bath, in Particular.

By T. G. M. B.

The SECOND EDITION.



L O N D O N:
Printed in the YEAR M.DCC.XXIV.

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Observationes Hydrostaticæ :










O R,

OBSERVATIONS

Relating to the

WATER'S WEIGHT.

OBSERV. I.




HAT the Weight of the Water of


T

 all the Baths is much alike, only the



Hot-Bath Water is somewhat lighter
 than the King's, and Crofs, as is
 further evidenced in the following
 Observations.

Observ. II.

That the Bath-water, if exactly weighed, is
 lighter than Common-water by 2 Ounces in a
 M 2 Gallon;

Gallon; for 12 Gallons of the Bath-water weighed but 95 Pound, 14 Ounces, whereas Common water as much weighed 97 Pound, 6 Ounces; 24 Ounces, or lbss . Difference. The like will hold in smaller Proportions, as 3ii . in a Pint, and 3i . in a Pint, and 3i . in a Pottle. Note,

That this Observation was made in Frost, and must be understood of Bath-water cold. See *Observ. IV.*

Observ. III.

That a Gallon of the Bath-water hot, weighed 8 Pound, 8 Ounces, 2 Pound, 2 Ounces, the Quart: Cold, 8 Pound, 2 Ounces and half; 2 Pound 3v . the Quart, 5 Ounces and half in a Gallon wanting; 3xi . in a Quart; 3vss . in every Pint.

Observ. IV.

That the usual Proportion in open dry Weather, is Common-water lbss . 3vi . the Pint; Bath-water hot, lbss . 3v . Bath-water cold, lbss . 3iv . Bath-water 1 Ounce in a Gallon less cold than hot; 3i . lighter than Common-water hot; 3ii . cold. Note,

That this Observation is chiefly to be understood of the King's and Cross Bath; and of the Measure, Weights, and Scales, used at that Time.

Observ. V.

That Bath-water hot, being weighed a Second Time, in like Proportion, against Common-water,

ter, in open Scale, both Waters did very near, in open Weather, balance each other; but standing in the Scale 'till the Bath-water was cold, the Bath-water required 3ii. in a Pint, to make up the Ballance.

Observ. VI.

That on another Tryal made Nov. 18. 1675. in open Weather, Bath-water hot, and Common-water, did weigh much alike; but cold, wanted 3ii. in a Pint of its own Weight hot, and (consequently) was 3ii. in a Pint, or 3ii. in a Gallon, lighter than Common-water.

Observ. VII.

That at any Time, Bath-water hot, or cold, was not heavier than common Spring-water.

Observ. VIII.

That the same Pint of Bath-water weighed at the first 12 Hours End, after taking from the Springs, standing 12 Hours longer, did weigh lighter by 3i.

Observ. IX.

That by a Pint, Wine-Measure, the Cross Bath Water exactly weighed 17 Nov. 1675. did weigh ℥bi. 3i. 3v. and 8 Grains.

Observ. X.

That the King's Bath-water weighed much the same, by the same Measure, Weights and Scales; at the same Time; and, if any Difference, the King's was somewhat heavier, being immediately weighed in the dry-Pump Room.

Observ. XI.

That the Hot Bath-water 1 Pint, weighed then at the King's Bath, did weigh $\text{lb. } 3\text{i. } 3\text{iii. } 3\text{fs.}$ and 4 Grains; but at the Hot Bath, with the same Measure, Weights and Scales, weighed $\text{lb. } 3\text{i. } 3\text{iv.}$ and 12 Grains; 38 Grains more than at the King's Bath.

Observ. XII.

That the Hot Bath-water, one Pint weighed $\text{lb. } 3\text{ii.}$ 8 Grains lighter than the Cross.

Observ. XIII.

That the Water of the Hot Bath, one Pint weighed 42 Grains lighter than the King's.

Observ. XIV.

That the Two former Observations immediately foregoing, were made with the Hot Bath-water, against the just Weight of the King's and Cross, and the Measure twice filled with the greatest Exactness, may cause this little Variation of 6 Grains between King's and Cross; but
if

of OBSERVATIONS. 151

if the Estimate be made from the Weight of the King's, Crofs, and Hot Bath-water, at, or near their respective Pumps (as in *Obs.* 9, 10, 11.) then the Hot Bath-water, one Pint is 56 Grains lighter than either King's or Crofs.

Observ. XV.

That the Hot Bath-water is the lightest of all, but the King's and Crofs are, in Weight, much alike, provided the Water of both be weighed at or near the Pump of either Bath.

Observ. XVI.

That the *Menstruum*, or Water imbibing the Minerals of the Hot Bath, is lighter than that of the King's or Crofs; for in one Pint of the former, are contained 11 Grains $\frac{1}{4}$. (as in *Obs.* 69.) and the Two latter, but 9 Grains $\frac{1}{2}$ (as in *Obs.* 67, 68.) one Grain $\frac{1}{3}$ more in a Pint of the Hot Bath-water, than the Crofs or King's, and yet the Hot Bath is so much lighter than either King's or Crofs, according to the former Observations.

Observ. XVII.

That as the King's Bath-water hath as much less Marle, as it hath more Gritt than the Crofs; so the Crofs Bath on the Contrary, hath more Marle, and less Gritt than the King's: which makes the Contents even, and the Weight of the Water equal, the *Menstruum* of both weighing alike.

Observ. XVIII.

That the drinking Pump in the King's Bath, and dry Pump out of it, convey out Water of an equal Weight; neither is that received at the dry Pump, lighter than that which is taken immediately from the Springs.

Observ. XIX.

That the Water of none of the Baths, did at any Time weigh heavier than Common-water, by the same Measure, Weights and Scales.

Observ. XX.

That Hydrostatical Observations may vary, according to the Difference of Weather, Water, Measure, Weights and Scales; but that what is mentioned before in relation to that Affair, is done (I judge) with as much Exactness as may be.

*Observa-*



Observationes Chromaticæ :

O R,

OBSERVATIONS

Concerning the

Water's Tincturing.

OBSERV. XXI.

THAT the Water of all the Baths warm will tinge with Galls.

Observ. XXII.

That the same Quantity of Bath-water warm, with the same Proportion of Galls, gives a deeper Tincture in frosty Weather, than in open.

Observ.

Observ. XXIII.

That the New Pump, and dry Pump, at the King's Bath, Tincture both alike, but the Water of the Bath itself, not at all. Note,

That this Observation is to be understood of the Bath when full; for if Trial be made when the Bath is filling, and the Water low, the Water of the open Bath will tinge, as coming more immediately from the Springs.

Observ. XXIV.

That a Glass-bottle filled with Water hot from the King's Bath, well cork'd and seal'd, gave a deep Tincture with Galls, in open Weather, 48 Hours after.

Observ. XXV.

The like Tincture, but somewhat more faint, I have observed at three Days end.

Observ. XXVI.

That the Water of the King's, Crosse, and Hot Baths, being kept close stopp'd and seal'd for the Space of Seven Days, the King's Bath did turn with Galls, but the Crosse and Hot were not alter'd at all.

Note,

That here might be some Fault in Stopping; for on another Trial, the Crosse Bath, on the Seventh Day, did give a Tincture. See *Obs.* 45.

Observ.

Observ. XXVII.

That the Water of the King's Bath well stopt and seal'd, did, at eight Weeks end, give a purple Tincture with Galls, little different from what it did when taken hot from the Pump.

Note,

That this I had from the Relation of another, and is not consonant to my other Observations: If so, there must be then a long Frost, which I have not met with since.

Observ. XXVIII.

That the Water of the Cross Bath cork'd, and wax'd, gave a pretty brisk Tincture on the Sixth Day after taken from the Pump, in open Weather, although the Bottle had been open'd and wax'd up Two Days before. The King's Bath-water also taken at the same Time, did turn, but not so soon, and more faint. Another Bottle also of the King's Bath did the like, filled Nov. 6. and opened Nov. 12. the same Days as before.

Observ. XXIX.

That the Water of the Hot Bath cork'd and wax'd, and open'd at 24 Hours end, did not strike a purple Tincture with Galls, though carefully made-up, as soon as taken from the Pump.

Observ.

Observ. XXX.

That another Viol of the Hot Bath-water open'd at three Hours end, in open Weather, did not tincture, though cork'd and wax'd as the former.

Observ. XXXI.

That Two Bottles of the Water of the Crosse and Hot Bath, open'd Twelve Hours after Sealing at the Pump, in Frost; and in a short Time carefully sealed up again, did the next Morning, Twelve Hours after, give a Tincture both with Galls and oaken Chips, but sooner and higher the Crosse.

Observ. XXXII.

That Two Bottles of the Water of the Crosse and Hot Bath filled from the Pump, and standing Twenty-Four Hours in frosty Weather, unstopt, the Water of both the Baths did turn with Galls, but sooner and deeper the Crosse.

Observ. XXXIII.

That the Water in the same Bottles standing Twenty Four Hours longer unstopt, the Water still continuing frosty, the Crosse Bath-water did tinge as formerly, but that of the Hot was not alter'd at all.

Observ.

Observ. XXXIV.

That Three Hours after the former Experiment, the Weather then breaking that had been frosty before, neither Hot nor Crows Bath-water was considerably alter'd, though the Water of the Hot Bath was but Three Hours before taken hot from the Pump. The Crows Bath-water, that but that Morning had tinged very well after Forty-eight Hours standing, did then very little; and the Hot taken immediately from the Pump but Three Hours before, not at all.

Observ. XXXV.

That two Glass Vials of the Crows and Hot Bath-water well cork'd and seal'd up Hot, and open'd at three Days end, the Crows Bath-water did tincture with Galls, but the Hot was very little alter'd. Another Half-Pint Bottle cork'd and wax'd, open'd at Four Days end, the Water of the Hot Bath, gave no Tincture at all.

Observ. XXXVI.

That Trial having been made with Galls, on the Water of all the Baths unstopp'd, at Ten Hours end, in open Weather; the Hot Bath lost its Tincturing first; the King's decayed much next; but the Crows Bath gave a Tincture much brighter than the King's.

Observ. XXXVII.

That the next Morning, Thirteen Hours after, the Weather still continuing without Frost, the
Crows

Crofs Bath did tinge very well; but the King's Bath very little.

Observ. XXXVIII.

That after Six Hours more, the Crofs Bath did tinge as formerly, but the Water of the King's did not tincture at all.

Observ. XXXIX.

That Eighteen Hours after that, the Crofs Bath in the same open Weather unstopt, gave a very faint Tincture with Galls, after some Standing, and shortly after became as the King's the Day before.

Observ. XL.

That the Water of the King's Bath in open Weather unstopt, gave no Tincture with Galls at Eighteen Hours end, when the Crofs Bath did at Twenty-Eight.

Observ. XLI.

That the same Water of the Crofs Bath kept unstopp'd, in open Weather, Eighteen Hours longer, or at Forty-Six Hours end, did not tincture with Galls, but in a short Time became thick and white.

Observ. XLII.

That the King's Bath-water that tinctur'd faintly in the Morning, at Six Days end, in open
Wea-

Weather, stopp'd again with Cork, but not wax'd, Four Hours after did not tincture at all.

Observ. XLIII.

That the King's Bath-water unstopp'd in open Weather at 10 Hours end, gives a faint Tincture with Galls; at 18 Hours very little (if any;) and at 24 Hours none at all, unless in Frost, or Weather frost-like.

Observ. XLIV.

That the Cross Bath-water unstopp'd loseth its Tinging in little more than 48 Hours, in any Weather.

Observ. XLV.

That the Water of the same Bath stopp'd and seal'd, will tincture after Six or Seven Days, with a faint Tincture; but after Nine Days, in open Weather, will not tincture at all.

Observ. XLVI.

That the Water of the Hot Bath unstopp'd, in open Weather, will give no Tincture with Galls after Three or four Hours, although the Water then retain somewhat of its Heat.

Observ. XLVII.

That the Water of the same Bath open'd or stopp'd, will not turn with Galls after Three or Four Days in any Weather.

Observ.

Observ. XLVIII.

That the King's Bath-water unstopt, did give a purple Tincture with Galls at Four Days end, in Frost; and the Fifth Day, the Weather breaking, with fresh Galls added to more of the Water, became turbid and white, much resembling Almond-milk.

Observ. XLIX.

That the Cross Bath-water cold and unstopp'd, in open Weather, tinctures longer than the King's.

Observ. L.

That the Hot Bath-water unstopp'd loses its Tincturing before 'tis cold, or in Four Hours Time at most; the King's Bath seldom exceeds 24 Hours, and the Cross 48, in open Weather.

Observ. LI.

That the Water of all the Baths may appear somewhat purplish after the Times before mentioned, but that faint Colour seldom holds more than Three or Four Minutes, before the Water grows thick, and for the most Part white; in long standing palish yellow; with fewer Galls, more green, and sometimes black.

Observ.

Observ. LII.

That the Water of the Crofs and Hot Baths kept in two Vials stoppt with Cork, but not seal'd, for the Space of two Years, did then with Oyl of Tartar become white, although both had deposited a Sediment, as well white as yellow. The Water of neither did tinge with Galls.

Observ. LIII.

That the halitous Part is not made more visible, nor can be saved by Distillation, although the Joynts be luted never so close; neither is the first distilled Water acid, nor will turn with Galls. The like hath Dr. French observed, in the Waters of the Vitrioline Well at Knaresborough, Yorkshire Spaw, P. 67.

Observ. LIV.

That the Water of all the Baths effæte, and divested of their Tincturing Purple with Galls, in a short Time become opake, and something like a thin Whey, or as if some few Drops of Oyl of Tartar had been mixed with it.

Observ. LV.

That the Bath-water loses its Tincturing with Galls, although nothing be observ'd to be precipitated.

Observ. LVI.

That the Bath-water sealed up in a glass Bottle cold, and laid near the Springs of the Bath Twenty Four Hours, doth not then recover its Tinging Property with Galls, but becomes white as precipitated with Oyl of Tartar, which Spirit of Vitriol makes clear again.

Observ. LVII.

That the cold Water of none of the Baths, except the Crosse, standing 24 Hours before Trial unstop'd, will tinge with Galls or otherwise, in open Weather, unless well stop'd and seal'd up hot.

Note,

That in frost-like Weather, in the Winter Season, the Crosse Bath chiefly, and sometimes the King's, may colour after this Time; but not after 48 Hours, unless in constant Frost.

Observ. LVIII.

That the Water of the Drinking-Pump lately erected in the King's Bath, tinges with Galls no longer than that of the Dry-Pump; but both within Ten and Twenty Hours Space, unstopt, in open Weather, lose their Tincturing and become effete.

Observ. LIX.

That the King's Bath-water at Eight Days end, and the Crosse at Nine, in open Weather, did not give any Tincture with Galls; although

Trial

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Trial was made on Seven Glass Vials (4 of the King's and 3 of the Cross) cork'd and wax'd at the same Time, and successively opened and experimented, with good fresh Galls injected into every Glass.

Observ- LX.

That how long the Waters of all the Baths will tincture in Frost, this Winter proving very mild, hath not yet given me an Opportunity to experiment.





Observationes Miscellaneæ:

O R,

OBSERVATIONS

Touching divers Subjects; more-
especially the Contents of the Waters,
and Things appertaining thereunto.

OBSERV. LXI.

THAT the Waters of all the Baths, though clear and transparent in a Glafs, do contain in their Body, a considerable Quantity of a fine white insipid Powder, which afterwards, by Decoction, becomes more brown and gritty, with a blue sulphurous Earth or Marle, and a saline Matter.

Observ. LXII.

That the Contents of the Bath are less in the same Proportion of Water, in wet Weather, than in dry.

Observ. LXIII.

That the Saline Matter producible in Substance from the Bath-water, subjected to the Sight, and other Senses concern'd, are only common Salt and Nitre.

Observ. LXIV.

That out of one Hogshead of the Water of the King's Bath taken from the Pump, in wet Weather, I had ℥x. 3vss. whereof ℥v. 3iii. were Gritt; ℥ii. 3viiss. Salt; ℥ii. 3iss. Marle.

Note,

That after this Proportion, Gritt hath five Parts; Salt about three Parts; and Marle two; common Salt more than two; Nitre one.

Observ. LXV.

That out of one Hogshead of the Cross Bath in the same Weather, came ℥xviii. 3v. whereof ℥iv. Gritt; ℥iii. 3i. Marle; ℥ii. common Salt; and 3ss. of Nitre.

Observ. LXVI.

That one Hoghead of the Hot Bath, in the same Weather, yielded 3xi. 3iii. whereof 3iv. 3iv. Gritt; 3iii. 3ii. Marle; 3ii. 3vi common Salt; and 3vi. of Nitre.

Observ. LXVII.

That the King's Bath one Gallon ordinarily contains near 43 Grains of Gritt; 23 Grains $\frac{1}{2}$ of Salt; 17 Grains $\frac{1}{2}$ of Marle; in all 3iv. 7 Grains. 5 Grains Gritt; 2 Grains $\frac{1}{2}$ Salt (*viz.* 2 Grains *Sal Commune*; and $\frac{1}{2}$ Grain Nitre) and 2 Grains Marle, the Pint. In all 9 Grains $\frac{1}{2}$.

Observ. LXVIII.

That the Cross Bath one Gallon contains near 32 Grains Gritt; 25 Grains Marle; 16 Grains *Sal Commune*; 4 Grains Nitre; in all $\text{3i. gr. 14. 4. gr.}$ Gritt; 3 gr. Marle; 2 gr. *Sal Commune*, and $\frac{1}{2}$ gr. Nitre, the Pint. Total 9 gr. $\frac{1}{2}$.

Observ. LXIX.

That one Gallon of the Hot Bath-water contains near 36 gr. $\frac{1}{2}$ of Gritt; 26 gr. Marle; 22 gr. *Sal Commune*; and 6 gr. $\frac{1}{2}$ of Nitre. 4 gr. $\frac{1}{2}$ Gritt; 3 gr. $\frac{1}{4}$ Marle; 2 gr. $\frac{1}{3}$ *Sal Commune*; $\frac{1}{3}$ gr. of Nitre. Total 11 gr. $\frac{1}{4}$ in a Pint.

Observ.

Observ. LXX.

That the Gritt in Proportion is almost double to all the Salts; in the King's Bath, more.

Observ. LXXI.

That the Common Salt is near three Parts, and the Nitre but one.

Observ. LXXII.

That the Hot Bath-water contains by more than a fourth Part more Nitre than the Cross. The like will hold as to Common Salt.

Observ. LXXIII.

That the Proportion of the Saline Part bears in the King's and Cross Bath, is near $\frac{3}{4}$ in a Hoghead, or 60 Gallons; but in the Hot Bath $\frac{3}{4}$ or somewhat better. So that in a Gallon of the two former are no more than 20 gr. Salt, 2 gr. $\frac{1}{2}$ in a Pint; in the latter 24 gr. in a Gallon, or 3 gr. in a Pint.

Note,

That what is asserted in the two Observations immediately preceding, concerning the Hot Bath-water containing more than the King's or Cross, was done on a single Experiment, which I have not since repeated.

Observ. LXXIV.

That one Hogshead from the Pump of the King's Bath, in frosty Weather, afforded ℥xii. ℥ii. of the Contents; whereof ℥vi. Gritt; ℥iiiss. Salt; and ℥ii. ℥vi. Marle; ℥ii. ℥ii. *Sal Communis*; and ℥x. Nitre.

Note,

That the same Quantity of the Crosse and Hot Bath-water I have not experimented in Frost, but judge them proportionable to the King's, upon which is grounded the 62d Observation.

Observ. LXXV.

That the Nitrous Parts of the King's and Hot Baths shoot much alike, into strong, firm, and compacted Needles; but the Crosse Bath more faint, into small hoary Threads, slender, short, and brittle.

Observ. LXXVI.

That what I call Marle, is chiefly that insipid blue Earth which remains on the filtering Paper after Calcination, and in Part burns away to less in the Crucible, being the *Terra* adhering more nearly to the Salt, and in which (probably) the Sulphur doth reside.

Observ.

Observ. LXXVII.

That the Crofs Bath-water hath less Gritt than the King's.

Observ. LXXVIII.

That the King's Bath hath as much Nitre as the Crofs, although the Form of Shooting be different.

Observ. LXXIX.

That the Water both of the King's and Crofs Baths, have an Operation in Potion much alike, only the Crofs Bath drinks more pleasant; the Reason of which may be gather'd from *Obs.* 77.

Observ. LXXX.

That the Bath-water cold, will coagulate Milk.

Observ. LXXXI.

That $\frac{3}{4}$ of the impalpable Powder precipitated from the Bath-water with Oyl of Tartar, and mixed with Spring-water, did not coagulate Milk, when 20 Grains of Alom did it effectually.

Note,

That half a Pint of Water will turn the Milk; and that this Quantity of the Powder is near as much as is contained in a Gallon.

Observ.

Observ. LXXXII.

That 3i. of the white Salt dissolved in half a Pint of Spring-water, and mixed with as much boiling Milk, made no Alteration: whereas 3i. of Alom dissolved in like Manner, made a clear Poffet with a hard Curd.

Observ. LXXXIII.

That the precipitated Powder, tho' fine, white, and impalpable, if precipitated in Evaporation, becomes more gross, browner, and gritty, and upon Settlement leaves the Bottom of the Water thick and white.

Observ. LXXXIV.

That the same Powder when precipitated, put on a red hot Iron Plate, neither boyls, crackles, nor melts, but lies heavy, dead, and burns not at all.

Note,

That this impalpable Powder bears an equal Proportion with, at least, if not exceeds, all the Salts contained in the same.

Observ. LXXXV.

That the Infusion of the yellow *Crocus*, or Ochre, poured on a Solution of *Sal Chalybis*, with the Addition of Galls, makes a deep Purple first, and afterwards black.

Observ.

Observ. LXXXVI.

That the Bath-water receives no Alteration by being close stop'd with Wax; nor will, unless by long Standing, deposite any Sediment that Way.

Observ. LXXXVII.

That the Salts do exhale, as is evident from this Observation: On the 20th of February, 167⁷/₅. the Cross Bath having been kept drawn 5 or 6 Days, and the Water so low, that the Tops of many of the Stones did appear above it, a Salt of the same Nature with that which is extracted, was observed to adhere to the Stones above the Water, reverberated by the ambient Air, the Season then very frosty, and fixed on the Stones in the Nature of a candyed Drop, or small white Tip, or Speck, resembled by some that saw it to the Excrements of Birds; some of the Stones I brought away, which a Month after abated nothing of their Saltness, neither would have done, if kept 'till this Time. Mr. Henry Dyer, Serjeant of the Cross Bath, gave me Notice of it as an unusual Accident, and Robert Baulch, at the White Horse against the Hot Bath, collected a good Quantity from the Tops of the Stones, which he afterwards gave me for Examination. It did melt on an Iron Plate, and left a Calx much like the Crystals; the Taste chiefly Alcalizate. The like Concretion I observed a second Time, 24 Octob. 1675.

Note,

Note,

That the King's Bath hath not yet afforded the like Observation, in regard the Water of that Bath cannot well be drawn so low.

Observ. LXXXVIII.

That an exact Pint of the Bath-water put into a Pint Glass Bottle, and the Height of the Water presently marked, the Bath-water cold subsided lower than the Mark on the Neck of the Bottle unstop'd, the Breadth of half an Inch.

Observ. LXXXIX.

That the subsiding or seeming Vacuity, mentioned in the former Observation, did appear within the Space of two Hours, although the Bottle well fill'd was immediately stop'd and seal'd.

Note,

That Common-water wax'd up warm, will subside in the Neck of the Bottle, after the same Manner as Bath-water doth : The Bottle Top-full, a void Space of half an Inch afterwards appearing, *Q. Annon hic detur Vacuum ?*

Observ. XC.

That the Sand of the Bath doth consist of Free-stone-Gritt, Marle, Ochre, Shells, Rubrica, Crystal

flal Pebbles, and Sulphur ; and that nothing Saline is contained in the same.

Observ. XCI.

That the Sand of the Bath dryed and weighed after the Affusion of warm Water on it, and has so continu'd for some Time, is not sensibly diminish'd in its Weight of what it was of before the Affusion of the Water, neither is the Water any thing salter, but a little more rough.

Observ. XCIII.

That a large Quantity of the Sand calcin'd in a *Flemish* Crucible, with as great a Heat as could well be given, no Concretion was observed, but dead gritty Ashes, neither did the Water in which it was afterward infused, become more salt.

Observ. XCIV.

That the Sand of the Bath put on a red hot Iron Plate, and held in a dark Place, burns very blue, and smells much of Sulphur, if only lying some Time before a strong Heat.

Observ. XCV.

That the Sand of the Bath on the Affusion of Vinegar, or any acid Liquor, will ferment.

Note,

Note,

That common Free-stone, and Shells, will do the like.

Observ. XCVI.

That the Mud of the Bath dryed, will ferment as the Sand.

Observ. XCVII.

That the Mud of the Bath doth consist of a blue Marle, some Shelly, or Testaceous Particles, and more Sulphur than the Sand.

Observ. XCVIII.

That the foul Contents of the Bath put into a Crucible for Calcination, in Order to the making the Salt more pure, before the marly or muddy Parts are consum'd, the Crucible then open'd, and the Contents touched with a Spatule, give a very strong Stench of Brimstone, and burn as blue as ever I saw any Sulphur do.

Observ. XCIX.

That the Mud itself hot, hath a Sulphurous Smell, and is very useful if apply'd in these external Distempers, which Sulphur doth relieve.

Observ.

Observ. C.

That the Scum of the Bath arising usually most in *June, July, and August*, floating on the Surface of the Waters, dried into Cakes, burns like Stone-pitch ; and being once kindled, goes not out 'till all be consum'd.

These Observations are made according to present Experiments ; Anomalous Observations may be noted afterwards.



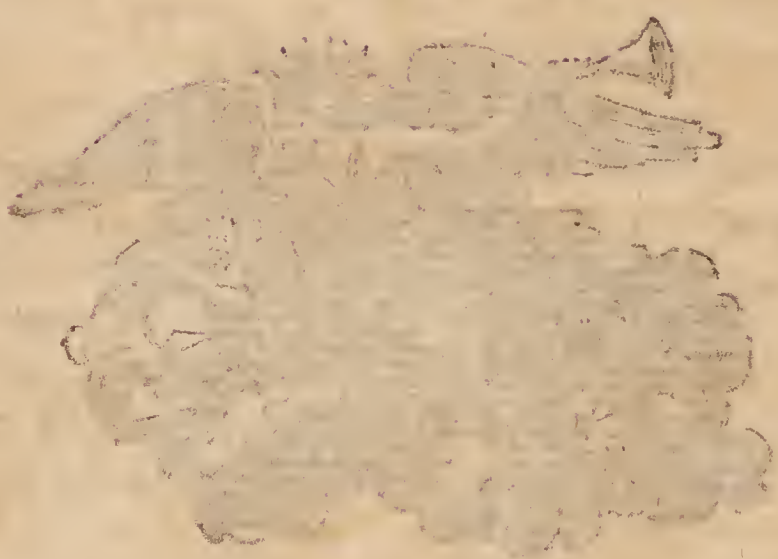
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THE
LIVES *and* CHARACTERS
OF THE
PHYSICIANS
OF
BATH,
FROM

The Year, MDXC VIII, To this
present Year, MDCLXXVI.

In which, within the Compass of Fourscore
Years, is comprehended great Part of the
Lives of XVII Physicians.

Which confirms the Words of *Hippocrates*,
in his First APHORISM:

ARS LONGA, VITA BREVIS.

By T. G. M. B.



L O N D O N:

Printed in the YEAR MDCCXXIV.

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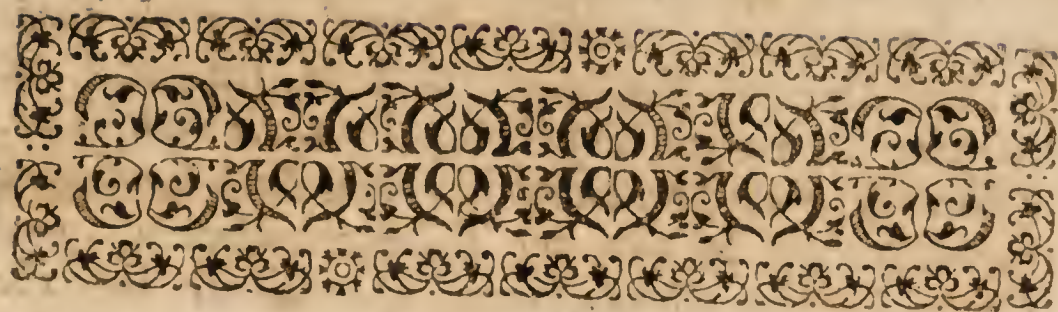
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TO THE READER.

Courteous Reader;

Although he that writes the Life of another Man, doth almost the same Thing as he that takes upon him the Care of a Friend in Trust, which, however faithfully discharged, is oftentimes accounted but a Thankless Office ; yet I have adventured to give, in the following Papers, a brief Account of some Particulars relating to the Physicians of Bath, with all the Truth and Candour that I can ; and if my Expressions, which I have smoothed what I may, in a few Places seem to grate and bear hard upon some, I would have those consider that shall take Exception at it, that 'tis not my Fault I had not better Matter ; and if I have proceeded as near as I could, according to the Subject, as I am sure is done, it will appear that I have not industriously abused the Dead, or distasted the Living, but used distributive Justice, in giving every one his Due.

To the R E A D E R.

This may also encourage others that have the like Opportunity, to do the same, that so those modest Meal-mouths, that think it too great an Honour to publish any Thing in their own Time, (whereby I am persuaded Learning hath been more injured than by any one Thing whatsoever, good Copies by this Means falling afterwards into the Hands of corrupt and illiterate Persons) may not want their just Commendation ; and those that keep their own Breath, as we say, to cool their Pottage in a Chimney corner, may have this good Use of another Man's. Whether well or ill, Quod scripsi, scripsi, and so Farewel.



T H E



THE
LIVES *and* CHARACTERS
OF THE
PHYSICIANS
OF
BATH.



HAVING hitherto discoursed of the Waters and City, I think it not improper here to give some Account of the PHYSICIANS of *Bath*, both in regard they have been as eminent as any, I think, in any Part of *England*, and also for the most Part have been continued in a *Series* of Judicious, able Men, well qualified and graduated in Universities, which deserve the greatest and most particular Mention here. And although I would have wished, that they had signalized themselves on the Place by some other Way besides their Practice, by which more

O 3 remark.

remarkable Memorials would have remained to Posterity, and been a good Occasion of my Commendation ; yet since they were pleased, for Reasons best known to themselves, to pass by the Thing that best deserv'd their Consideration, I mean the Nature of the Waters, (only one or two having written of them) I shall not make them the like Requital, but give what Account I either know or can procure, and gather up the Fragments of their Memories that remain. And First of Doctor *Reuben Sherwood*.

1. *Doctor Reuben Sherwood.*

OF *Dr. Reuben Sherwood*, the first Physician I meet with any Remembrance of, I can give no other Account than that he died here *Anno Dom. 1598.*

2. *Dr. Thomas Elton.*

DOCTOR *Thomas Elton*, 'tis likely, was Contemporary with *Dr. Sherwood*, or not long after, whom he survived twenty Years, and was buried at *Bath*, Aug. 11. 1618 ; A well-bred Gentleman, obliging and affable.

3. *Dr.*

3. Dr. John Sherwood.

AT the same Time also flourished Dr. *John Sherwood*, graduated in the University of *Cambridge*, who died Two Years after Dr. *Elton*, and was buried in the Church of *St. Peter and Paul*, in the South-Isle, as appears by this indifferent Poetry on a Piece of Brass against the Wall ; in which he is recommended to Posterity with this bare Title: *Joannes Sherwood, Doctor Med. Sepultus 16 Febr. 1620.*

The Verses these ;

*Conditur hic Sherwood, medicâ præclarus in arte
Doctor, adhuc cujus fama corusca volat :
Ossa licet lateant hujus sub mole sepulchri,
Spiritus æthereâ vivit in arce poli.*

Which may thus be answerably translated :

Here famous Doctor *Sherwood* lies,
Whose Skill in Physick Lore
Was great, and his bright Fame yet flies,
Both now and evermore.
Although within this Tomb his Bones
Are hidden out of Sight,
His Soul, not pent within these Stones,
To Heav'n hath ta'en her Flight.

Of him I can learn nothing more observable, than that he was of the *Romish* Religion, and a good Housekeeper.

4. Dr. Edward Jorden.

Concerning Dr. *Jorden*, whose Name is yet fresh, and Memory very acceptable to all that knew him, having left the deserved Reputation of a Learned, Candid, and Sober Physician: I have written something heretofore, and shall only here again mention some Particulars more nearly relating to his Person and Condition.

Doctor *Jorden*, I understand, was a Gentleman of a good Family, and being a younger Brother, designed for a Profession; for which when he had accomplish'd himself by a convenient Course of Studies in his own Country, he travelled abroad to see the Manners and Customs of the Universities beyond Sea; and having spent some Time there, especially at *Padua*, where he took the Degree of Doctor in Physick, returned home, practised at *London*, became an eminently solid and rational Philosopher and Physician, and one of that famous and learned Society, *The King's College of the Physicians there*.

He had a natural Inclination to Mineral Works, and was at great Charges about the ordering of *Alom*, which succeeding not according to Expectation, he was thereby much prejudic'd in his Estate, as appears from these Words in the Seventh Chapter of his Treatise of *Nat. Baths and Mineral Waters*; 'Now I come to *Alom* (*Indignum vox ipsa jubet renovare dolorem!*) the greatest Debtor I have, and I the greatest Benefactor to it, as shall appear, when I think fit to publish the Artifice thereof.' For the Patent or Grant for the Profit of the *Alom*-works, which he

he reasonably did expect, fell afterwards, I know not how, to Sir *Arthur Ingram's* Lot, although the Doctor also had a good Share in the Affection of King *James*.

After he had practised some time in *London*, he settled at *Bath*, where living many Years, and having Children not a few, his Conversation was so sweet, his Carriage so obliging, and his Life so answerable to the Port and Dignity of the Faculty he profess'd, that he had the Applause of the Learned, the Respect of the Rich, the Prayers of the Poor, and the Love of all. But living a studious and sedentary Life, which might encourage the two grand Distempers he labour'd under, the Stone and Gout, departed this Life in the great Climacterical Year of his Age 63, and of our Saviour's Nativity 1632, lying buried in the South Isle of the Abbey-Church, but without a Monument, or any Inscription. And thus much for Dr. *Jorden* who was the first Physician that writ any Thing of the Waters, that resided on the Place.

5. Dr. Edward Lapworth.

Doctor *Lapworth* was bred up in the famous University of *Oxford*, and a Member of that flourishing Society *Magdalen College* there, where he proceeded Doctor in a solemn Act in the Year 1611, with two eminent Physicians his Contemporaries, Dr. *Simon Baskervill*, and Dr. *Thomas Clayton*.

His Correspondence was good with *Jorden*, being both at one Time Practitioners on the Place, as appears from the Verses he hath prefix'd

fix'd to Dr. *Jorden* in *Laudem Operis*. He had only one Daughter, who being married out of this Place, caused his Name to be extinct here. He lies buried in the North Isle of the Abbey-Church in *Bath*, and deserv'd a better Epitaph than this *English* Inscription cut round the Stone that lies over him:

*Here lieth the Body of Edward Lapworth, Doctor in Physick, who deceased
24 of May, An. Dom. 1636.*

His Age I guess was near 60. As to his Gifts of Mind, they are doubtless beyond Exception, having been so well educated, and a Professor, if I mistake not, in *Oxford*, which gave some Interruption to his Practice here; being in Body not tall, but fat and corpulent, which inclin'd him the more to take his Ease.

6. Dr. Tobias Venner.

DOCTOR Tobias Venner was born at *Petherton* near *Bridgwater* in the County of *Somerset*, of honest Parents, who sent him to *Oxford*, where he was made Doctor in Physick to the great Repute of his own Family, and *Alban Hall*, in the Year 1613. He lived many Years at *Bath*, and had the Name of a plain, charitable Physician, but no ready Man at stating a Case, which occasioned one, a little tartly, to say, *That whereas some other Men had* (according to the Common Phrase) *Guts in their Brains*; Dr. Venner's *Brains were in his Guts*. However, he found the right Way to write a Book called, *Via recta ad*

ad vitam longam, wherein is this memorable Observation, * *That a Gammon of Bacon is of the same Nature with the rest of the Hog*. He wrote also a little Discourse of Bath, thereby expressing his good Will to the Waters; which had it been bigger, he should have had more Thanks, but being very small, must be contented with the like Commendation.

He lived to see both his Wives, and all his Children, die before him, and left his Estate to the Relations of his Second Wife now in Bath.

† *The Ashes of this Grave,
No Phœnix, but Chimera gave,
The Head, the Feet, about the Thigh,
A Duck, a Mouse, a Butterfly.*

I can give no better Account of him, than a Friend of his hath done in this *Epitaph*, to be seen engraven in a Marble Table, in the Middle of a Massy Monument of Freestone against the East Wall of the South Isle, in the greatest Church of Bath, under his Effigies, in this Manner.

SISTE VIATOR
PAUCIS TE VOLO

JUXTA HIC SITUS EST VENNERI VENERANDUS CINIS
INTER MORTUORUM CLAUSTRA MORTUUS JACET
MAGNUS MODO MORTIS ANTAGONISTA
DOCTOR ET DECOR MEDICINÆ
CUJUS SUPERBIAM NON FORMIDABANT ÆGRI
UTI NEC CONCULCABANT FACILITATEM
AUXILIUM ENIM

* V. R. *ad* V. L. p. 59. l. 8. † *A Riddle.*

NEC SORDIDE OBTULIT
 NEC FASTIDIOSE NEGAVIT
 IN HOC CONVERSATIONIS SUAVITATI
 IN ILLO PROFESSIONIS DIGNITATI
 PROSPICIENS
 PAUPERUM ET DIVITUM MEDICUS
 HORUM QUOD MEDICINAM
 ILLORUM QUOD CHARITATEM
 SOLUS HIC TAMDIU EXERCUISSET
 HORUM QUIDEM OMNIUM APPLAUSU
 ILLORUM CIVITATIS HUIUS DELECTU
 NEC PLUS DEFUIT SANIS QUAM ÆGRIS PAUPERIBUS
 MANU NON PARCA EXHIBENS
 HIS MEDICINAM
 ILLIS ALIMONIAM
 VIAM RECTAM AD VITAM LONGAM
 NON MONSTRAVIT MODO SED ET PERAMBULAVIT
 THEORIAM UNIUS ANNI CONFIRMANS PRAXI 85
 TANDEM ITINERANDO DEFESSUS DISCUBUIT
 ET IN HOC DORMITORIO OBDORMIT
 GRATA MEMORIA DIGNISSIMUS
 DOCTOR TOBIAS VANNER
 QUI
 NATUS PETHERTONIÆ
 EDUCATUS OXONIÆ
 OBIIT BATHONIÆ

MART. 27.

1660.

The Author of this Epitaph, for who made it is uncertain, seems rather to me, to have been a Divine, than a Physician; for which Conjecture I have these Reasons:

1. That the Form thereof is borrowed from one made on Doctor *Daniel Featley*, now in *Lambeth*, as I could clearly make appear by comparing the Expressions, as I have sometime done, and for the Satisfaction of any that desire it, may, without a Journey thither, be read, *mutatis mutandis*, in Dr. *Featley's* Book against the Anabaptists, where it is copied, and whence it was probably taken. Now a Physician, I conceive, would never have taken Pattern from a Divine, to make an Epitaph on his own Faculty, which is proper for a Divine, being more his Concern.

2. *Venerandus* is a Word suiting better with a Divine, and a more proper Epithet than for a Physician, as *Reverendus* & *Venerabilis*; and is most likely to have come from one whose Tongue was tipp'd with such Language, who would rather chuse to run the Risque of an Impropriety in Speech, than lose the Honour of a jingling Quibble.

3. 'Tis probable this Epitaph was made near a Church, and that either when the Bells were going, or else in Imitation of that Sound, as may appear from the Chime of *Hoc* and *Illo*, *Horum* and *Illorum*. *His* and *Illis*, with the great Pains taken to observe the Cadences so exactly as is done.

4. In the Fourth Place, the Word *Plus* is somewhat suspicious, by which we must understand *Minus*, otherwise, *Nec Plus defuit sanis quam agris pauperibus*, may bear this Sense, and not well any other, *That the Doctor was wanting,*
both

both to the one and the other, when the Author, I suppose, meant, *He was wanting to neither*. Now *Plus* is a fit Word for a Divine, and might the sooner have been made Choice of for this, that 'tis the Origin or Source of the Word *Plurality*.

Fifthly, and lastly; No Physician would have used that Expression, *Theoriam unius anni confirmans Praxi* 85, by which Dr. *Venner* is made a Practitioner from his Mother's Womb, and longer a Physician than St. *John Baptist* was a Prophet; which in itself being somewhat harsh, though taken in relation to his Course of Life, where the Life of that Expression lay, can proceed from none but a Divine, who oftentimes will be nibbling at Physick.

Again, for I reserved something for a Second Part, That Expression is justly liable to Exception, *Quod Charitatem solus hic tamdiu exercuisset*, wherein Dr. *Venner* is made the only Charitable Person in *Bath*, whereas there were then living, besides some Charitable Inhabitants of another Stamp, Three or Four more Physicians there, whose Charity, though perhaps not so rampant as Dr. *Venner's*, was enough, both in Food and Physick, to call the Truth of that Expression into Question.

And although this necessary Requisite to every good Christian, that is in a Condition so to do, be not with that Ostentation put into the Epitaph of Dr. *Baue*, yet I have heard a good Character of him also in this Kind, and do know many Poor Persons now alive in *Bath*, that will affirm, they have received good Alms and Physick too from his Charity. I confess *Tamdiu* may do some Service here, to this effect, That Doctor
Venner

Venner was the only Man that was Charitable here so long; which, though it may abate somewhat, doth not take off the Arrogance of *Solus*, which, like the Sun, never appears without Reflection. I write not this to derogate from Dr. *Venner*, or disparage the Epitaph, having that Esteem for both they do deserve; but as the Devil, we say, should have his Due, so, I think, 'tis not fitting a Saint should have more. And thus much for the Charitable Dr. *Venner*.

7. Dr. Ralph Bayly.

DOCTOR *Ralph Bayly*, of whom I am next to treat, was well known to all his Collegues of *New-College* in *Oxon*, where he had his Education, to be as stout a Man as that Society hath yielded, having in his Temper an equal Mixture of *Mars* and *Mercury*, or rather, born under the *Prædominium* of *Mars*, as he hath often evidenced when he long'd for Venison, though sometimes bought at a dear Rate.

Dr. *Bayly* was born in *Berkshire*, descended of a good Family in that Country, whose Coat-armour is, *In a Field Gules, Three Martlets; Or, A Chief Vairy Argent of Azure*. Having spent some Time in *Winchester* School, that fruitful Seminary of Learning, he was in due Time transplanted to *New-College* in *Oxford*, where he gradually proceeded with good Applause, 'till he arrived at the Perfection of Doctor of Physick, which hapned in the Year 1618. By Two Wives, the one a *Quintin*, the other a *Hungerford*, both comely Women, he had Issue, both Male and Female.

His

His Eldest Son *Walter*, my intimate Friend and Acquaintance, he educated in the University, in *Magdalen-Hall* in *Oxford*; but finding his Genius not so much inclining him to Learning, tho' he was a great Admirer of it, and had much Respect for any Scholar that was truly so, and had Learning enough himself to render him facetious, and as good Company as any Man could wish; finding, I say, his Genius not so much bent to Study, he rather chose a gentile Education, and being very acceptable to all Persons of Quality, especially the Gentry of *Hampshire*, in particular *Sir Richard Giffard* of *Sumburne*, *Henry Ludlow* of *Tadley*, Esquire, and many others, where he used to hunt and recreate with all the Kindness imaginable; at last, on the Death of his Father, took to the Estate, and settled at *Bath* in the same House the Doctor enjoy'd, where he lived plentifully many Years, and saw an End of all his Generation; 'till at length, for Death is the End as well of the good Companion as the Sot, of a lingering Distemper, being much obstructed in the Mesentery and Urinary Passages, he ended this Life about the Sixtieth Year of his Age, on the 15th Day of *November*, *Anno Dom.* 1672, and is buried in the Abbey-Church in *Bath*.

Dr. Bayly is further remarkable in this, that he is the only Man, save one, of any Physician that lived here, that had a Son of his own Profession, which was *Mr. Thomas Bayly*, by his Second Wife *Mrs. Hungerford*, an Ingenious Man, and good Physician, of whom his Brother would often speak with much Affection and Respect; who in the Beginning of the Wars, when no Acts were kept, was, with many others, created Doctor, *An. Dom.* 1642, and practising at *Newbury* in *Berkshire*,

Berkshire, with good Success and Reputation, died of a high Infection in the Prime of his Years, not long after. He was much encouraged to the Delivery of Women, being fitted for that Service both by Art and Nature.

It is also further observable in Dr. *Ralph Bayly*, that although he had good Practice, and prescribed to many Patients, yet such was his good Temper of Nature, and Temperance withal, that he never took any Physick himself, or made Use of the Bath, being never sick in all his Life; which fell the heavier on him, according to the vulgar Observation; for going from his House at *Bath*, to another he had at *Widcombe*, a Mile distant, he was suddenly taken with a great Faintness, insomuch as he was constrained to call at a Neighbour's House before he came to his own, to desire something to refresh him, using these Words, *As God shall mend me*, (which was his usual Saying) *I am Ill*, and presently departed, and was buried at *Widcombe*, Nov. 16. 1645.

He was a Proper, Comely Person, charitable, and well read in the Antient Learning; witness a good Collection of old Authors, well mark'd with his own Hand, now in my Possession. And so much for Doctor *Ralph Bayly*, being the only Man, I think, that ever liv'd and dy'd without Pain.

8. Sir Edward Greaves.

DOCTOR *Edward Greaves* ought also to have a Mention here, having some time liv'd and practised in this Place (to which he hath Relation yet) 'till his Deserts prefer'd him to what he now

enjoys ; concerning whom, to avoid the Imputation of Flattery, which I ever hated, I shall say no more, than that he is full of Honour, Wealth and Years, being a Baronet, one of the College of Physicians in *London*, Physician in Ordinary to His Majesty, and 35 Years Doctor in Physick, which he took, being Fellow of *All-Souls College* in *Oxford*, An. Dom. 1641.

9. Dr. Samuel Baue.

WITH Doctor *Baue* I had the Happiness to have a particular Acquaintance, being the Eldest Physician on the Place at my coming hither, in the Year 1667, and although many Things are observable in his Life and Practice, having lived to see compleated Fourscore Years, yet I shall contract myself as much as may be, in regard I would not be tedious in a Thing that ought to be brief.

Doctor *Baue* was born in the remarkable Year 1588, at *Colen* in *Germany*, of a good Family, as appears by a good Coat of Arms brought thence, whence he came Young for *England*, on Occasion, as he told me, of his being Tutor to Sir *Thomas Edmond's* Son, which Sir *Thomas* was Ambassador from King *James* at *Paris*, where Mr. *Baue* was then a Student ; in which Family, and about the Court, he continued some time with an honourable Allowance from the Knight, but chiefly bent his Studies to the Faculty of Physick, in order to which, he afterwards became a Member of that great Body and famous Society of *Christ Church College* in *Oxford*, where he proceeded Doctor in Physick in the Year 1628, with

Three

Three other Physicians that went out with him, viz. Dr. Taylor, and Dr. Speed of St. John's, and Dr. Saunders of Oriel, at a very splendid Act.

The first Beginning of his Publick Practice was at Gloucester; being invited thither by one *Whittington* an Apothecary, where, though his Condition could not be expected to be extraordinary; having no Natural but Acquired Friends in England, yet in Time he made his own Fortunes, and so well improv'd his small Talent at first, as to leave behind him, besides what he parted with in his Life-time, which was not inconsiderable, the best Estate of any Physician that died in Bath. And I have often heard him bless God for that good Success he had given his Undertakings, and the prosperous Condition he had brought him to, not without a modest humble Reflection on what no Man had any Reason to be asham'd of, in the Words of good Old *Jacob*, in the like Condition, *With my Staff have I passed over this Jordan, and now the Lord hath made me many Hands.* Which is more than many Men have said, that have been rais'd to greater Estates by less Skill or Pains, it being no Disparagement to any Man to have a Beginning, since none but God, but had so; and a Gatherer, though the first Rise of a Family, is much better than him that scatters through many Generations.

After he had been some time in Gloucester, his Parts and Learning procured the good Opinion of Alderman *Robinson*, a wealthy Citizen, and Counsellor at Law, whose Daughter he married, with whom he lived many Years. and had Sons and Daughters. From Gloucester he removed to Bath, about the Year 1640, where practising

with admirable Success for near Thirty Years, and maintaining a mighty Riding Practice, died in a good Old Age, in his Eightieth Year, as may further appear by this Epitaph I caused to be engraven in Marble on a handsom Monument, erected by his Wife Mrs. *Hester Baue* in the South Isle of the Abbey-Church, as followeth:

P.

S.

QUISQUIS ES

QUI NON FASTIDIS CADAVERIBUS INTERESSE
NEC FUNCTORUM VITA QUICQUAM TIBI EST MOLESTA
(MEMORIA

SCIAS VELIM

JUXTA CONDI BEATAM RESURRECTIONEM MANENS

QUICQUID ERAT MORTALE

SAMUELIS BAUE

MEDICINARUM DOCTORIS ET IN HAC CIVITATE HAUD ITA
(PRIDEM
PRAXIN EXERCENTIS

MAJORI FELICITATE AN SEDULITATE INCERTUM
MORBORUM PERDUELLIS, FACULTATIS VINDICIS, EMPIRICO-
(RUM MALLEI

QUEM

COLONIÆ AGRIPPINÆ NATUM

ET IN VARIIS ACADEMIIS IN QUIBUS OXONIA EDUCTUM

GLOCESTRIA PRIMITUS EXCEPIT DEIN BATHONIA

UBI

POSTQUAM PER ANNORUM PRÆTER PROPTER XXX. CURRI-
(CULUM

NON SINE MAGNO FAMILIARIS REI INCREMENTO
NEC MINORI ÆGROTANTIUM TAM EGENORUM QUAM DIVI-
(TUM LEVAMINE

MEDICINAM FECISSET

ET DE MORBIS CUJUSCUNQUE GENERIS TRIUMPHOS ÆGISSET
TANDEM

HUMANÆ SORTIS MISÉRIAS PERTÆSUS

MORTI ULTRO SE TRADIDIT

A C

ÆTERNIS

of the Physicians of BATH. 197

ÆTERNIS BEATITUDINIBUS FRUI EXOPTANS
CARNIS EXUVIAS LÆTUS DEPOSUIT

E T

MORTALITATI NON VITÆ VALEDIXIT

Vto. DIE AUGUSTI

ANNO ÆRÆ CHRISTIANÆ

M DC LXVIII.

ÆTATIS SUÆ

LXXX.

OBDORMIUNT ETIAM NON PROCUŁ ABHINC
DOCTORE PRÆDICTO ET ESTERA UXORE EJUS ORIUNDUM
DUPLEX PAR

MASCULUM UNUM ALTERUM FOEMINEUM
MAJOR NATU MARIA RIDLEY MINOR ESTERA BARNES
JOANNES INSUPER ET FRANCISCUS UTERQUE COELEBS
VITAMQUE JAM UT SPERATUR AGENS
VERE COELESTEM.

He was, besides an able Physician, well vers'd in the *High-Dutch*, *Low-Dutch*, and *French* Tongues; but above all, eminent in the *Latin*, which he wrote and spake very fluent and proper.

He met with no kind Usage towards the latter End of his Days from one whom he had formerly sufficiently obliged, who, because I hope he hath, or may live long enough to repent his unhandsom Carriage to him, and some others of the Faculty, shall only here be mark'd with the Letters I. F.

He had an excellent Memory, and ready Invention, insomuch as having much Business, and using Two *Amanuenses*, he would write himself, and dictate to the other Two, at the same Time, in several Languages.

He was also very happy in, the Glory of a Physician, the Cure of Chronical Distempers, which he effected chiefly by *Chalybeat* Medicines, which, he was wont to say, were as true as Steel; but a little too much addicted to the Vanity of *Nostrooms*, which he being many times unwilling to discover, caused some Dislike on Consultation with others.

He was by Nature not so affable, but somewhat morose, and hated an Empirick, though made use of his Medicines. In short, He was an industrious Man, an able Physician, and much in the Favour of that great Physician of his Time Sir *Theodore Mayer*, between whom many Letters passed, on Commendation of Patients, chiefly French. And so I pass on to Dr. Maplet.

10. Dr. John Maplet.

DOCTOR *John Maplet* was born in *London*, bred at *Westminster School*, and afterwards removed to *Christ Church* in *Oxford*, where he was first Proctor of the University, then Doctor of Physick, in the Year * 1647, and after that, Principal of *Gloucester-Hall*; A Man well accomplish'd as a Gentleman and a Scholar, meek, sober, and temperate, beloved and respected by all that knew him.

While he was in the University, he had an Opportunity by accompanying the Lord Viscount *Falkland*, to whom he was Tutor, to Travel, and accordingly, went in the Year 1650. into *France*,

* When he had his Grace, but kept no Act 'till 1654. where

where he continued near Two Years, chiefly at *Orleans*, *Bloys*, and *Saumur*, and made many Observations on those Countries, which he committed to Writing in a Neat and Curious Hand, in some Epistles now with me, with a particular Tract of his Travels, in an elegant *Latin* Style, which I may some time or other make Publick, and do further Right to the Memory of this worthy Person.

A Second Time he travell'd into *Holland* and the *Low Countries*, with my Lord *Falkland*, then Viscount, on the Death of his Elder Brother, whom before he had accompanied into *France*, the Young Lord *Scudamore*, and Sir *Henry Jones*, who lost his Life by an unfortunate Shot at the late Siege of *Maestricht*; and at his Return, or shortly after, married Mrs. *Anne Hull* of *Bristol*, where he usually practised in the Winter-time, and at *Bath* in the Summer.

And although he left a good Estate, considering the small Time he had for Practice, dying not Old, and spending much of his Time at first Abroad, yet I must say, he had no Right done him, by * one that pretended much Kindness to him, on whom, to my Knowledge, he had Reason to depend, and whom he not only con- sidered and honoured as a Patron, but *Latin* Epistles gave him the same Reverence for as long as he lived, for the whole space of 16 Years, viz. from the Year 1650. in which he travell'd, to the Year 1666. But seeing that Cunning Fox is not Earth'd, I shall not dig

* D. Wall of Chr. Ch. Oxon.

after him; but proceed to some other Particulars, of no Vulpone alike under Ground.

He was of a tender, brittle Constitution, inclining to Feminine, clear Skin'd, and of a very fresh Complexion, and though very temperate, as I said before, yet inclinable to Rheumatick Distempers, chiefly Gouts and Catarrhs, which would oftentimes confine his Body, but not his Mind, which was then more at Liberty to expatiate, and give some Invitation to his Poetick Genius, which was very good, to descant on the Tormentor, and transmute his Sorrow into a Scene of Mirth. I shall mention One or Two out of the Manuscripts I have, because ingenious and short.



The first is,

*De Catarrhi in Oculorum alterum defluxu. Ad
Amicum singularem Dr. D. Wall.*

SPongia præmadidi collis mihi clausa cerebri est,
Expressoque oculum degravat imbre meum;
Omnis ab infuso turgescit Venula succo,
Nec siccum hoc aqueo cernis in orbe locum,
Ingratum Phæbi lumen: transire fenestras
Auroram roseo nil juvat ore meas.
Nil juvat infoculo lignorum lucida Strages,
Pyramidesque altæ quas sibi flamma facit.
Nil florum splendor; species nil pulchra colorum,
Hos si vel proprio fundis ab ore, Venus.
Delicias oculo facitis qui forte serenat,
Cui gratum est quicquid, dum micat ipse, micat:
Sed pluvias; & acre serum immingente Catarrho.
Solamen Tenebræ lumine majus habent,
Defluvium pacant quæ sunt expertia lucis,
Ni tamen è vultu lux ruat illa Tuo.
Nam de Te radius mulcet fulgore Catarrhum,
Opticus & mihi quem frons Tua vibrat, erit.
Sufficit in reliquis obscuræ noctis imago,
De Te sed veniet quæque serena dies.

Another

Another is,

De Catarrhi Fugâ.

Fare, ubi diluvium est? mihi tandem exaruit orbis,
 Absumptasque suas continet amnis aquas.
 Ordo Naturæ, rerum & simulachra recurrunt,
 Et minimas atomos sicca pupilla capit.
 Non fontem, sed pumiceum jam cernis ocellum,
 Et Victor lachrymis fræna dat ille suis.
 Splendore ingenito lucet Crystallina sedes,
 Cui fuscæ ecclipsin guttula nulla parit.
 Jam licet immittas, oculorum Phæbe, fenestris
 Te totum, Sphæra est illa, vel illa, capax.
 Pulchra veni, si quando lubet, Tu Flora, colores,
 Seu facies istos, seu Tuus hortus alit.
 Nil jam divinum lumen, jam palpebra nullum
 Excludit, mihi Nox atque Catarrhus abest.
 Plus tamen hoc gratum est quod non circumfluit humor,
 Vultum qui possit dimidiare Tuum.
 Nam mihi quem lippo referebant vivida vela,
 Integer haud fuerat, pars erat illa Tui.
 Te fruor, atque oculi speculo, sed dulcius illud
 Quam speculi, quod pars perditæ nulla Tui est.

The good Doctor was very sensible of his approaching End, and well knew, that all the Props of Art. were too weak to support his crazy Temper, and therefore was not of the Number of those that are blamed for having gray Hairs creeping on them, but not regarding it; for he made these excellent Verses *In Primam Cantatem*, which shall be the last of his I shall mention here.

Humida jam Nivibus sparguntur Tempora primis,

Et fuscam intingunt albida fila comam.

Sentio quam tacite non intellecta Senectus

Obrepit; nos Ver credimus, instat Hyems.

Hæc si tardeseat, mox infert Cura senectam,

Mensq; dies citò quod non facit, ipsa facit.

En quoties morimur? succos sive exedit hora,

Sive hos degeneres turbida Cura parat.

Grata mihi veniunt tamen hæc præludia fati,

Morsq; his primitiis, quàm ferit, ante monet.

Respicias animum, tibi det Prudentia canos,

Atq; annos Virtus præeat alma tuos.

Hoc decet, hoc pulchrum est, atq; hoc canescere Divum

[est;

Fædus eris canus Vertice, mente Puer.

I have not adventured to Translate the two former Copies on the Catarrh, in regard I think they cannot be so aptly expressed in any other Language; those Verses, as many others, sounding best in their own Words; Yet as a Foil to the Doctor's Jewel, to render it more radiant, I have attempted a Translation of the last, thus:

On the First Gray Hairs.

ON Temples moist first Snow is shed,
Twist, brown and white, is on my Head;
Old Age creeps on, that silent Thing,
Winter's at Hand, we call it Spring.
If this delay, Care brings on Age,
And Thoughtfulness prevents Time's Rage.
How oft we die? we our Time devour,
Or toilsome Care our Juices sour.
Welcome these Monitors of Death;
Death stops not now, but warns, my Breath.
In prudent Mind see Thou be sage;
Let Virtue older be than Age.
Thus to be Gray is meet and good,
For God grows Gray thus understood;
And 'tis indecent to behold
A Boyish Soul, a Body Old.

His

His Body being macerated by a Weakness of the Tone of all the Parts, by Degrees languished to that Measure, that confined him for some few Days to his Chamber and Bed, and a Flux of Blood supervening from the Hemorrhoides, which, though stopp'd in Time, gave him little Hopes of Recovery ; and therefore after the Use of many Means in vain attempted, he resigned himself to Death, which in a short Time ensued.

One Thing I must remind, as an Argument of his Contentedness to leave this World, That after myself, and Mr. Rob. Chapman his Apothecary, who attended him in his Sickness, had left him, and taken our Leaves of this dying Friend, an * Eminent Physician of his former Acquaintance coming accidentally to Town, and hearing the Doctor was so dangerously ill, made what haste he could to pay him his Respects, and inquiring of Mrs. Maplet, How the Doctor did? and she replying, Without any Hope of Life, he, in Kindness, said, *If he were not dead, he would do his utmost Endeavour to recover him ;* and desired her to acquaint him with as much, which she did ; but the Doctor replied in his modest Manner, *Pray remember my Service to Sir Richard, and let him know that I thank him for his Visit ; but am past his Cure and any body's else ; and shall take it as a Kindness, if in the Condition I am now in, I am not troubled ;* and the same Night parted with this Life for a better, according to the Motto of the Rings at his Funeral, *Morior ut Vivam.*

* Sir R. N.

He wrote several Latin Epistles, in which he had a singular Faculty, (which, with some Poems, and a few Observations, were the greatest Part of his Writings he left behind) as well to the most Eminent Sir *Alexander Fraiser* Knight, and Principal Physician to his Majesty, his learned and good Friend Sir *John Baber*, with whom he had an intimate Acquaintance, Sir *Francis Prujean*, Dr. *Bate*, Dr. *Meara*, Dr. *Nedham*, and others at home, as also to some abroad, particularly Dr. *Neal* of *Leedes*, and Dr. *Bennet* of *Saumur*, where he was very sick, and recover'd from an imminent Danger of Death, by the Help and Assistance of this Physician, as he most pertinently express'd in one Epistle, in which are these Words; *Sed & Silente illa Comitatus Tuæ voce, resuscitata Mibi Tua ope Sanitas, ad hoc scribendi officium, nullo etiamsi alio devinctum nomine, adegisset, ut qui fuerit conservatum Corpus, Corporis saltem pars manus recognosceret. Per Tuam scilicet Apollineam manum, in suo refloruit domicilio, robustus ille vigor, quo itinerum aut suscipere labores, aut perferre debueram.*

I shall end the Life of Dr. *Maplet*, with one Expression of his Kindness to me, and another of mine in return to himself.

The First is, That on the Setting up of Dr. *Baue's* Monument, there having been some envious Spirits that rais'd a Discourse to the Disparagement of that Epitaph, I was constrained to appeal to this worthy Judge of Learning for a Censure, which I did in these Words. *Censuram Tuam, Vir Doctissime, de hoc Epitaphio liberam & vere criticam peto obnixe; Utrum Prisciani, ut dicitur, Capiti vulnus aliquod sit inflictum, quemadmodum Tenebrio quidam anonymus, cui sinciput*
uti

*uti suspicor, parum sanum est, deblaterat, fac ut
sciat Tui Observantissimus. To which the Can-
did Doctor returned this Answer ; Cur dicam Tibi
Epitaphii hujus causâ scribat ullam, aut ferula pla-
gam cur jubeat retribui, ob vulnus aliquod in Capite
suo inde acceptum, omnino non habet Priscianus.
A Tuo, ut ab Eruditorum calamis solet, illesus per-
manet, debitoq; fruitur honore ; si vero Beatitu-
dines in plurali, apud authores politos infrequen-
tius legamus, haud ideo in Grammaticen peccatur ;
sed & isti numero Hebræorum idioma de Cælesti
loquentium felicitate, quod Te callere scio, forte
favet. Ecce quam libere Tecum & sincere, prout
ipse jubes, ago ; quod ipsum amoris studiique erga
Te mei certissimum quoddam pignus esto. Tibi dedi-
tissimus.*

The other I call a Kindness to Him, is an
Epitaph much short of his Desert, now standing
in the North-Isle of the Abbey-Church in Bath,
which, out of the great Respect I had to the Me-
mory of my Worthy and Learned Friend, I pre-
sented to Mrs. Maplet, and is now cut in a black
Marble Table well adorn'd, and set in the midst
of a neat Monument of Alabaster, in these
Words:

CON-

CONDITUR HIC
 JOANNES MAPLET M.D.
 TRINO BANTIBUS ORIUNDUS
 ANIMI CORPORISQUE BONIS PRAEDITUS
 ERUDITIONE MODESTIA ET COMITATE
 PAUCIS SECUNDUS
 ARTIUM ET SCIENTIARUM OMNIUM PANOPLIA INSTRUCTUS
 REI AUTEM MEDICAE ADEO PERITUS
 UT EXEMPLUM DESIDERETUR
 PROFUIT QUIBUS POTUIT
 OBFUIT NEMINI
 ACADEMIAM PATRIAM OXONIENSEM
 UBI PLURES ANNOS VIXIT
 EXTERIS ETIAM NON INSALUTATIS
 BATHONIAM ET BRISTOLIAM
 UBI PARTITIS ANNI VICIBUS
 FECIT MEDICINAM
 NON MINUS VIRTUTUM SUARUM EXEMPLO, QUAM PRAXI
 HONESTAVIT
 OBIIT PRIDIE NONAS SEXTILES
 ANNO CHRISTI INCARNATI
 MDCLXX.
 ÆTATIS SUAE
 LV
 CUJUS OSSA CUBENT MOLLITER.

His Wife also enjoying little Health afterwards, being Paralytick and Convulsive, died Apoplectick the 14th of February following, only 6 Months and 12 Days surviving the Doctor. Of whom, as also of two Children *John* and *Mary*, lying on both Sides of the Parents, this Remembrance may be seen in a little Marble Table under the former.

SEPELITUR ETIAM JUXTA

ANNA UXOR EJUS

SEX TANTUM MENSES ET DECEM DIES

MARITO SUPERSTES

OBIIT XIV FEBR. ANO DNI MDCLXX

ANNOS NATA XXXV.

INTER PARENTES QUOQUE QUASI IN LECTO

PLACIDE OBDORMIUNT

CONJUGII SUI PIGNORA CHARISSIMA

JOANNES ET MARIA

HAEC TRIMESTRIS ILLE TRIENNIS

OMNESQUE

RESURRECTIONEM FELICEM

UNA EXPECTANT.

His Style in *Latin* was tierce, his Words choice, but his Periods a little too elaborate. And thus much for the Learned, Candid, and Ingenious Dr. *Maplet*, a good Physician, a better Christian, and an excellent Poet.

On THEMISON.

WHen many Autumns *Themison* had past,
 He Master of a great House was at last;
 Another passing by, and viewing it,
 Said, *Here's a great Head, but, pray, where's the Wit?*
 The House was great, the Furniture but small,
 The Head had Skull, but had no Brain at all.

** Ultimus hic ego sum, sed quam benè, quam malè, nolo
 Dicere, de me qui judicet alter erit.*

I am the last, but whether Bee or Drone,
 Another's Pen shall write, and not my own.

Others also there were good Practitioners on
 the Place, though not of that Degree. The First
 of which is ;

Mr. Thomas Leyson.

THIS Physician was a *Welshman* but of what
 County in *Wales* I know not ; a Man of a
 good Repute, and especially taken Notice of for
 his Charity to the Poor. He is as remarkably
 commendable for his Kindness to his Wife, who
 lies buried in the Parish Church of *St. James* in
Bath, with this Epitaph made by himself in Brass
 against the Wall, under the East Window, which

** D. Johnson de Seipso.*

because a rare Instance of Affection, I shall mention here, and for a further Propagation of the Kindness of this *Welsh* Love shall translate into our own Language.

The *Latin Verses* are these :

TRistia quæ Uxori mæstus Tibi carmina pono
Quam vellem nimium Te potuisse mihi?
Septem annos (sic velle Dei est, sed nolle Parentum)
Et sine Connubio mutuus arsit amor.
Bis septem sine lite ulla simul egimus annos,
Disjungi & mortis Lis mihi prima Tuæ est.
Sola meos Tu, habuique Tuos ego solus amores,
Quos habet atque habeat dehinc Libitina Tua.
Tecum semper eram viva, defuncta ero Tecum,
Nunc animo, & dum mors junxerit atra duos.
Namque istâ (cum fata vocant) dormire sub urnâ
Destino, propitius det mihi vota Deus.

Tho. Leyson Vir mæstiss.
Mariæ uxori posuit
1599, Apr. 15.

The Translation thus :

THese Verses thus in Grief made on thee, Wife,
Would thou hadst made on me to save thy
(Life.
Seven Years (so long did Friends cross Heaven's
We lov'd and lik'd, but at a Distance still. (Will,
Q 2 Twice

Twice seven Years more we liv'd in Love together,
 Serene and calm, thy Death first brought foul Wea-
 Thou hadst my Loves alone, I only Thine, (ther.
 Which now unto Thy Ghost I do consign,
 Alive was with thee still, dead will be so,
 In Mind at present, 'till in Body too:
 For when God please, I'll rest too in Thy Grave,
 From whom this Boon in Mercy now I crave.

*Tho. Leyson in much Grief
 made this on Mary his
 Wife, 1599. Apr. 15.*

This Mr. *Leyson* writ a *Latin Poem*, in which was contained the Description of the ancient Seat of the as ancient Family of the *Stradlings*, called *St. Denet's* in *Glamorganshire*, which, the laborious and learned *John David Rhæsus*, that took so much Pains to so little purpose, in the Epistle Dedicatory to his *Latin Welsh Grammar*, written to Sir *Edward Stradling*, affirms he saw, and turned into *Welsh*, giving it the Commendation of *Venusium Poema*, and He the Title of, *Vir cum rei medicæ, tum Poeticæ peritissimus*. He died in *Bath*, and, as far as I understand, had his Desire, expressed in the two last Verses on his Wife. The Time of his Death is uncertain, being not entred in the Register.

John Vincentius Ostendorph.

OF this Physician I can give no other Account than that he was a *German*, and like *Field-fares*, and *Wind-thrushes* did change his Climate for better Food, which he liked so well that he married here one *Mrs. Cavell*, Sister to an Ingenious Limner of that Name; and after some Years Practice, died, and was buried in the Abbey-Church in *Bath*, the 12th Day of *April*, Anno Dom. 1648. I have mentioned him in this Place, because if a Doctor of Physick it was beyond Sea, of which I have not Assurance.

Mr. John Dauntsey.

MR. *John Dauntsey* was a Gentleman of a good Extraction, and younger Son, as I have heard, to a Knight, who having been bred a Scholar, was encouraged to the Practice of Physick by Dr. *Jorden*, for whom Mr. *Dauntsey* had a great Esteem, as appears by his Verses on Dr. *Jorden's* Treatise. He was a Man of great Integrity, but made no considerable Advance in the World. He died ancient, near 80, in the Year 1650, and was buried in the Abbey-Church, Feb. 12. He married a Gentlewoman of a good Family, one *Mrs. Winter*, by whom he had, besides other Children, Mr. *John Dauntsey* his eldest Son, who practised Physick with good Success in *Bristol*, and died lately; and another now living a Chyrurgeon.

There was an Epitaph made on him by one known by the Name of Dr. *Somerschall*, a Chymist, who, if no better Chymist than Poet, was never like to attain the Liquor *Alkabeft*, or the Philosopher's *Arcanum*, which because I am inform'd, it was put on Mr. *Dauntsey's* Tombstone by this Philosopher (of which I have seen some Marks) I have through his Means made so great a Progress, as to know where the Philosopher's Stone is, though but little legible on it now; whereupon, as greater Chymists have been in this Search, I was frustrated of my Expectation; however the Verses were in Part these, or to this Purpose :

Here lies Doctor John Dauntsey by Name,

Whose harmless Life, whose saint-like Death, whose
(lasting Fame,
With Judgment good in Physick Lore,

Approved to Posterity shall this Ingraving over last
(evermore.

Mr. Thomas Brewer.

MR. *Thomas Brewer* was born in the County of *Somerset*, where there are now of that Name related to him, of good Estates; an industrious Man, a good Scholar, and expert Physician, as I have understood by his Prescriptions. He was well acquainted with the *Greek* and *Latin* Tongues, and excellent in the former, which is so

so rare among many Pretenders to the Faculty now, that *Græcum est, non potest legi*, may be made Use of again, and therefore this Instance of Commendation ought not to be omitted. He lived many Years in good Esteem, and is buried in the Abbey-Church, with this Inscription on a Piece of Brass on his Tombstone: *Here lieth the Body of Thomas Brewer, late of the City of Bath, Physician, who departed this Life the Third of November, An.Dom. 1665.*

Mr. Somerschall.

AS a Conclusion, or Epilogue, I shall add the Life of one *Somerschall*, a Chymist, mention'd before, who died in *Bath*, after many Projects, in a poor Condition, which, in a merry rhiming Humour, I thus suddenly wrote.

There dwelt a Chymist here of Note,
That wore in Summer a furr'd Coat;
Who promising to make all rich,
Left not enough to cure the Itch.
Full glad was *Bath* of such a Guest,
And gave him Room among the rest
That came to practise here or try
What Gain it was to multiply.
His Tackling he together got,
To work he went, would do—— what not?
And sooner others to fetch over,
He wheedled in the Earl of *Dover*.

Both Night and Day the Fire brent,
To bring to pass this grand Intent,
Which was the Thing aim'd at, I'm told,
To pave the Streets of *Bath* with Gold.
But yet to compass this Design,
There must beforehand be some Coin,
Which freely lent on Reputation,
To pay, the *German* pawn'd his Nation.
A House was built fit for the Work,
Where he in Privacy might lurk,
As close as if made under Ground:
The Money went, but nothing found,
For something still fell out to cross
The Main, and multiply the Loss.
At length when nothing did appear,
And he had wrought this and that Year,
Death seizeth on this Artist great,
To try if he were not a Cheat.
Unwilling he was fore to go,
And leave his Work imperfect so;
But go he must: On which they mind
To see what Pelf he left behind,
And find no Gold or Silver Ore,
But Soot and Horse-dung there good Store.
His Pockets search'd too, were unwilling
To part with all they had, a Shilling,
Which was too little judg'd by all.
To pay the Charge of's Funeral:
The Boards of a poor Hut be built,
Were sold to multiply the Gilt,
To set the *Caput mort* in Ground:
Of this Philosopher profound.
Th' Apothecaries too, they say,
Were willing something to defray,
As Part of what they got to Boot
By Sale of's famed Spirit of Soot.

Hermes his Bird went thus to rest,
Leaving a Feather in his Nest.
On whom, as on a broken Staff,
I write this homely Epitaph:

*Here lies the Man, whom Bath did call
By th' Name of Dr. Somerschall,
Or, if you like this better, know it,
Here lies John Dauntsey's famous Poet.*

T H E E N D.



THE HISTORY OF THE

REIGN OF
HIS MOST EXCELLENT
MAYESTY KING
JAMES THE FIRST

BY
JAMES MONTEAGUE, ESQ;
OF THE MIDDLE TEMPLE
IN LINCOLN'S INN

IN TWO VOLUMES.



A N
A P O L O G Y
FOR THE
B A T H.

BEING

An ANSWER to a late Enquiry
into the Right Use and Abuses of the
BATHS in ENGLAND, so far as
may concern the Hot Waters of the
BATH in the County of SOMERSET.

WITH

Some Reflections on *Fresh Cold-Bathing,*
Bathing in Sea-Water, and *Dipping in*
Baptism.

In a Letter to a Friend.

By the Author of the Latin Tract,
De Thermis Britannicis.

Avicen. Can. 4. Fen. 1. Cremonensi Interprete.

Omnis Contradictor, imprimis cum est super
Veritate excusatus est.

The SECOND EDITION.

L O N D O N:

Printed in the Year M DCC XXIV.



Inclyti Medicorum Londinensium

Collegi Regalis

PRÆSIDI Dignissimo

D. D. Edvardo Brown,

Doctissimi Viri

D. Thomæ Brown,

Eq. Aur. F.

Una cum

Censoribus Eruditis, &

Præctico Eximio,

D. Wilhelmo Gibbons;

Hanc pro

Thermis Bathonenfibus

APOLOGIAM.

Lubens merito

Dicat Confecratque

AUTHOR T. G.

QUI aliquid statuit, parte inaudita
 altera, Æquum licet statuerit,
 haud Æquus fuerit. Non dedig-
 nabitur itaque bene scio Huma-
 nitas Vestra acuto adeo Judicio & Cen-
 sura stipata oculum in Examen hoc mo-
 destum benignum conjicere, præsertim
 cum Apologiam Tuæ Excellentiæ Do-
 mine P R Æ S E S (Amice plurimum
 Honorande) nuncupandi causa cogens
 comparuit, quod ea ferme omnia quæ
 sequentes Pagellæ protegent & defen-
 dunt Manæitns Antecessor Tuus ὁ πᾶντο
 (Miles) mihi primus in lucem proferendi
 præbisset ansam; & doctissimi Episcopi
 Norvicensis authoritas, magna apud me
 jubet mandatque. Dabam Aquis Calidis
 in Magnæ Britanniæ Comitatu Somerse-
 rensi Anno Æræ CHRISTI M. DCC. IV.
 Raptim, & Paucis, ne Patientiam Ve-
 stram sesquipedali Epistola iniquius Viola-
 rem, quos in Thermarum Britannicarum
 Approbatione, haud ita pridem æquissi-
 mos habueram. Valete Viri Celeberrimi,
 & Aquas Calidas quas amâstis olim, olim ite-
 rum Amore & Favore Vestro ornare Dig-
 nemini.



THE
PREFACE
TO THE
Candid Reader.

WHEN Minerva, *as the Poets fancy,*
made a Bath for Hercules, and both
became the Deities of all the Baths in
the World, we were then taught, kind
Reader, what we still find true, That Bathing is
of great Use after hard Labour, and mightily
refresheth all weary Persons. But the Luxury of
the Romans in after Ages grew great and exorbi-
tant in stately Buildings, Ornaments, and pompous
Dedications, *as Dio and Suetonius, in the Lives*
of Nero and Titus, give some Account ; and Mar-
tial wittily says,

Nero.

Neronianas hic refrigeret Thermas.

After that, in the Time of Dioclesian, the Roman Baths were more stately and numerous; and in the Time of Antonine, what pertain'd to them, resembled a little Province, incredible to any that do not consider, that Rome in its Glory, as Antonius Thyfius before Roma Illustrata relates, took up in City and Suburbs more than Forty Miles, contain'd eighty hundred thousand Persons, and had above four hundred Temples. These Artificial Baths, chiefly for Pleasure and Delight, were much frequented, with the Natural of Baia in Campania, by the chiefest in Rome; of which Strabo, lib. 5. relates, that they were [ὑδατα θερμά καὶ πρὸς τὴν τρύφην, καὶ πρὸς διεγερτικὴν νόσων ἐπιτηδεύεια] of great Use not only for Delight and Pleasure, but the Cure of Diseases. That our natural Hot Baths in Britain dedicated to Minerva, were known to the Romans, is plain from an authentick Roman Historian, whose Age, in my Antiquities of Bath, I put much lower than common Chronology; and the carved Stone-Arches, in the King's Bath, seem to be Roman, as appears by that Expression in Solinus, where he writes, that the Fontes Calidi, or the Hot Springs, in Britain (then) were opiparo exculpti apparatu; (not exculpti, as is usually read) noted for their Sculpture, not the Ornament, which was nothing before the generous Gift of that great Benefactor Sir Francis Stonor, in the Year 1624. Upon this the Romans might have had a longer Station here, as their Coins and Inscriptions, elsewhere taken Notice of and explain'd, do evince. Now though cold Water, and Water gently heated by Fire, was often us'd by

Per-

Persons affecting Delicacy and Delight; yet a greater Degree of Heat was ever thought necessary for the Cure of most Diseases: in pursuit of which, no doubt, as well as drinking the Water, many have been, and now are, irregular. The long Experience, and peculiar Knowledge I have had of the Hot Waters of the Bath, with the kind Respect and great Applications made and receiv'd from the Users and Favourers of the same in former Times, have drawn from me these few Remarks, more to maintain what, at the Request of the most Excellent Sir Thomas Millington, late President of the Physicians College Royal in London, I have already written, than out of any Desire again to appear in Print; partly to explain and compare Observations, and in Part to rectify, if any Thing be amiss, for the further Use and greater Benefit of sickly Persons at the Bath: In which as I have been as tender of the Repute of Learned Men at Home, as the Matter would bear; so I thought myself obliged to do the Right was deservedly due to some eminent Physicians Abroad, from whom I had received so great Respect, not only in our own Country, but in other Nations, particularly High-Germany, Holland, Denmark and Sweden, as their Epistles make manifest. And if I have here and there intermix'd some Digressions, I have done but the same Thing the most Learned Sir George Ent did before, when he answer'd the Crudities of Parisanus, against the Circulation of the Renowned Dr. Harvey, as I shall have Occasion afterwards in this Apology to remind the Reader, in a Digression against Riolan, who with greater Insolence treated Dr. Harvey, and his Learned Friend Dr. Highmore, on the same Subject. What remains, is only the Consideration of the more curious Researches I have made into the Motion, Na-

ture and Parts of the Blood, and other Juices contain'd in it; the Passage of the Bath-water and all Liquids, from the Mouth to the Kidneys; and, it may be, a shorter Passage discover'd of Potulents in general, as well as Mineral Waters to the Bladder, which perhaps upon further Search, on this Intimation, may be generally received, consonant to an Observation made in human Dissection, by the Eminent Dr. Thomas Bartholin, late Anatomy Professor at Copenhagen, advanc'd and encourag'd by that great Promoter of Learning, and Patron of Learned Men, King FREDERIC III. Which seems to me to be the only Help we may ever have from Nature on that Account; since we cannot now expect a Demonstration from the late great Physician at Blandford in the County of Dorset, who, in an Epistle to me, dated Aug. 6. 1694. was of Opinion, analogous to that of Blancardus in the Circulation, *Materiam potulentam copiose ingurgitatam, per canales è fundo ventriculi prodeuntes, ea qua omento conjungitur regione, sine mora, pergere ad emulgentes.* The same Person having formerly often urged me to publish what I knew de Thermis Britannicis, hath again been earnest with me to make publick my Thoughts of the Passages of Urine. *Ductuum Urinariorum descriptionem, ex Medicis tuis observationibus, & potulentorum transitu ad renes, quam te publici juris facturum dudum promissisti, avidus expecto: Breviorem esse Viam, quam te solerter rimantem invenisse spero, innuit & indigit, congiurum plurium redditio quasi extemporanea, sine diabete, quibusdam, iisque sobriis, prout a Viris audiui Londini, Oxonii, & alibi. Ingenii tui prolem, noli quæso ulterius Musæo tuo inclusam, damno publico detinere, sed eruditorum oculis*

oculis te subicere peramanter oro. I have had many other Solicitations from Learned Physicians at home, and abroad, to whom I have returned Answer in my Consilia, Observationes, & Epistolæ Medicinales, not yet made publick. But what is chiefly to be consider'd in the present Apology, is, what is farther added for the better Information of a Person Learned and Ingenious, Author of a late Discourse concerning the right Use and Abuses of the Baths in ENGLAND, against Nitrum calcarium, and a subterranean Fire, the too long reputed Cause of the Heat of the Bath; to the unexpected frightful Ghost of which in this strange Apparition, I thought fit to speak, to give greater Illustration and Strength to what I have formerly urg'd against it, in the larger Prints of *Thermæ Britannicæ*, now reviv'd and better explain'd, in a Letter to the Reverend and my Worthby Friend, the present Archdeacon and Rector of Bath; In which I have consider'd the most material Objections and Reflections on these hot Springs, formerly publish'd by the noble Author, in order to advance the Credit and Reputation of colder Waters in other Places beyond their Merit and Possibility of doing good, any more than what respects Self-Interest and a private Concern. And although, notwithstanding the great Pother hath been lately made about Alkaly and Acid, as the two Hemispheres and grand Hinges of the practical Part of Medicine, or rather Deus & Diabolus, Preserver and Destroyer of Mankind (the Vanity of which deluding popular Notion, Dr. Andry hath sufficiently shewn and expos'd in his late Discourse of Worms) I have still great Reason to maintain a good Opinion of the antient Method of Physick, by the Help of which I

R 2

have

have perform'd so many considerable Cures; yet I am much inclin'd to think, that Medicines in solid Form, have chiefly Respect to the Stomach and Intestines, where they for the most Part rest, till farther distributed by convenient Liquids: Whereas the more inward Distempers of the Viscera and Blood, are soon reach'd by Quantities of Liquids, taken in due Time after Solids; which makes the Bath-water a better Vehicle to what is mix'd with it, or 'tis affused on, than a Medicine, or sufficient Remedy of itself, and exceeds and excuseth most Decoctions and Juleps, that are commonly prescribed in lesser Proportion. To give a greater Lustre to the Bath, and Drinking the Water in a regular Manner, I may here affirm, That the FOUNTAIN of Honour, many honourable Persons and Persons of Quality, have experimented the contrary of some Things contain'd in this Enquiry; in particular, * That the Cross Bath is much too hot for a temperate Bath; and, † That the Water of all the Baths in Potion heats the Body so, as to cause Defluxions, with the several kinds thereof, Rheumatism, Gout, Consumption, &c. When the Sulphur so admirably dissolved naturally in the Chyme of the Waters, as to become fluid, and inoffensive both to Smell and Taste, which no Art can attain unto, or incorporate so again, bath render'd this Hot Water so amicable and balsamick, that, in Conjunction with Nitre, it penetrates the most intimate Recesses of the Body in general, and

* Pag. 9.

† Pag. 40.

*the Lungs in particular : by the Use of which, all Persons in such Distempers, may reasonably expect much greater Advantage, than from any cold Mineral Water or Spaw whatsoever. Which to me is easier to believe, than that Alexander Severus, the Roman Emperor, was ever in Britain ; or that Constantine the Great was a Leper, and cured by being baptized in a Pond by Sylvester the Pope : when the best Historians, Rufinus, Pomponius, Orosius, Eutropius, Cassiodorus, and the Tripartite History, allow it to be done by Eusebius, not Cæsariensis, but Bishop of Nicomedia, where he happen'd to die in his Way to Jerusalem, and the River Jordan. The Author's own Words are these, * Constantine was cur'd of his Leprosy by his Baptism in the Pond he saw in his Vision, in which Pope Sylvester afterwards Dipped him. The like Error is committed in the same Page as to Clodoveus the first Christian King of France, whom Gregory Turonensis calls Novus Constantinus, and is said to have been a Leper, cur'd by Dipping-Baptism by the same Person, the Year in the Margin 499, the Time of Symmachus, according to Platina, when Constantine dy'd 336. Besides, the French History, done by a better Hand, after the Story of that King's vowing to be a Christian, on the Success of Battle, in the English Words of Edward Grimstone's Translation, says no more than this : So (then) Clovis was baptized at*

* *Cold Bathing*, p. 74.

Rheims, by St. Remy (Bishop of Rheims) with great Solemnity; and says, that Gregory of Tours says no more than that Clovis was baptized; without the Dove that brought in her Bill a Viol of Oil, with which their Kings have been anointed ever since. Whether Philosophy holds Pace with History is our next Enquiry, which I intend shall be very short, in regard should I longer insist on Paradox, Novel Opinion, and rotten Authority, I should be no better than an idle Boy, that admires and tires himself in pursuit of a Painted Fly, to avoid harder Work. And 'tis one of the blessed Effects of the late Revolution, that People since, more than ever, study saving Knowledge, and how to live easy and cheap, upon a common Level; as most do now on that other, turn from the antient Way of Bathing, to the new Mode of Drinking the Water at the Bath. I shall only further acquaint the Candid Reader, that I have made this Apology for the Hot Baths, with the same Mind, as Cornelius Tacitus says he writ his Annals, Sine ira, & partium studio, quorum causas procul habeo. And all I shall trouble the Reader with in the Preface more, is what he may read in the Imperial History, in the Life of Constantine the Great, That whereas it is written in a little Book, that Constantine was infected with a Leprosy, and cured (not by dipping in a Pond, but) with the Blood of little Children, he caus'd to be slain for that Purpose; Platina holdeth this for a forg'd Fable, and no Writer of any Credit, Antient or Modern, writes any such Matter. And 'tis no way probable, that Constantine was baptized by Sylvester, who had no better Repute than that of a Magi-

*Magician ; though Caranza * in his Summary of the Councils, corrupts the Text, and for Magus puts Magnus, in Favour of Pope Sylvester II. Others again, to avoid the Scandal or Blemish, as some may think it, of Constantine's being baptized by an Arian, allow him to die before he came to Bithynia.*

* P. 788.



LETTER TO THE EDITOR

I have the honor to acknowledge the receipt of your letter of the 10th inst. in relation to the matter of the proposed amendment to the constitution of the State of New York, and in reply to inform you that the same has been forwarded to the proper authorities for their consideration.

I am, Sir, very respectfully,
Your obedient servant,
J. B. [Signature]

JOHN B. [Signature]

ALBANY, N. Y., [Date]

TO THE EDITOR OF THE [Newspaper Name]

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A N
A N S W E R

To a late

E N Q U I R Y

Into the

Right Use *and* Abuses of Bathing.

S I R,



THE *Rarities* of Nature in the North of ENGLAND, having had a Share of our *former* Converse, and some *Discourses* happening about *Buxton-Wells* in the County of Derby, and the Author of a *late* Treatise concerning the right Use and Abuses of the Baths in ENGLAND; the Design of which was to set up *Colder Waters*, in *Greater* Opposition to the *Hot-Baths*, than the Thing will bear: I thought fit to

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to take the *same* Measures with that the *inquisitive* Author prescribes to the * *Drinkers* of the Waters of the *Bath*, not to take it *too* hot from the *Pump*, but suffer it to *cool* a little, that so the *Gas* may not offend the *Head*.

After *this* Enquiry had enjoy'd a *convenient* Familiarity with my *other* Books, and made his *Complement* becoming the *Gravity* of more *Antient* Authors on the *same* Subject, at *leisure* Hours I read it over, and found,

Πολλὰ μὲν ἔδλα μεμυγμένα, πολλὰ δὲ λυγρὰ.

Many good Observations, *Collections* and Hints from *others*; some *New* Notions with very much Ease *introduc'd* and *advanc'd*, and some *Old* Opinions too stiffly *adher'd* to, and *maintain'd* without *Proof*; A pretty *Laconic* way of Writing, concise and *magisterial*, outdoes *Pythagoras* and *Peter Lombard*, the Masters of *that* Art. Indeed when I read the *Preface*, I did not think so much on the *Gates* of *Mindus*, as the stately *Propylæum* of a curious Edifice.

Amphora caput institui, cur Urceus exit?

The *Doctrine* of *Perspiration* is a most *noble* Subject, and requires more *exact* Thoughts and Consideration about it: A *Doctrine* which hath been a long Time *conceal'd*, and would have lain longer *hid*, had not the famous *Sanctorius* rescu'd it from the *Obscurity* it was in, and so *advantageously* propos'd it to the *Publick* View; which

this Author hath so *excellently* cultivated, that I hope it will be a Means of *further* Essays, and more *Experiments* on so exalted a *Theme*, on which the Cure of *Fevers*, and many Diseases of the *Blood* and other *Juices* do chiefly depend: And *this* Point being so well handled by the *ingenious* Author, 'tis adv sible he more seriously consider, whether a *Cold Bath*, which stops the *Pores*, and hinders *Transpiration*, can be of that *General* Use, as in *this*, and some *other* Writings since, he would have it to be; which probably may have no better Effects in perspirable Bodies, than lying on the *Cold Ground*, or admitting *Cold Air*, which the Country People call *catching Cold*.

The *Calor Nativus*, or, *Calidum Innatum*, & *Humidum Radicale* of the *Antient* Philosophers and *Physicians* (which I think we cannot better understand, than by the *Heat* of the *Blood*, and the Juice we call *Nutritive*, it being a known Maxim among 'em, * *That we are Nourish'd by the like Matter of which we are made*) will be further illustrated by a greater Search into this grand *Arcanum*: And as the *invisible* World, as an Heavily † *Prelate* formerly taught us in a *Book* of that Nature, both in Space and Inhabitants, far exceeds the *visible*; so the *invisible* Evacuations outpasse all the *visible*, and the accelerating, or impeding the *invisible* Stream, commonly call'd *insensible* Perspiration, by Bathing or otherwise, I judge will prove the *surest* Hinge, and much more considerable than that of *Alkalies* and *Acids*,

* *Isdem nutrimur ex quibus constamus.* † Jos.
Hall late Bishop of Norwich.

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the Preservation of Health, and curing *many*
Diseases, will turn upon.

I confess an *Ignis fatuus* Abroad, to which the milder vital *Flame* is compar'd by a *great* Person; and some *whisp'd* Men at Home, of *prime* Rank in the *College* of Physicians, have *endeavour'd* to persuade the World, that every Man is a *dark Lanthorn*, or, humanly speaking, hath a *Light within*; though * *Cesar Cremoninus*, and *Hermannus Conringius*, Two grand *Sticklers* for their Master *Aristotle* against *Galen*, go no further than a moderate Heat, to which *Conringius* gives the Name of *Fire*, and something *like* a *Flame*, that doth not shine nor give any *Light*: But this Notion is so *wild* and extravagant, that notwithstanding the *best* Props *Ernestus Burgravius*, his excellent Second *Sir George Ent*, the famous *Dr. Willis*, and that great Physician and Anatomist of his Time *Dr. Lower*, could afford it, like a *false Star* 'tis fallen to the Ground, and the *Light* that was never kindled but in their own *fanciful* Thoughts, is so far *extinguish'd*, as never like to *perplex* the World again, how it could be maintain'd without *Air*, or not break forth thro' the *Spiracula* of the *Mouth*, *Nose*, and *Ears*, having so advantageous a *Tunnel* as the rough Artery or † *Wind-pipe* so commodiously scited, and disseminated through the *Lungs*; as is related by an *eminent* Physician, to have been *sometime* observ'd in a great Drinker of *Brandy* and *Aqua vitæ* (then *Aqua mortis*) who after a contending *Debauch*, the strong spi-

* *De calido innato, c. 1. De calore nativo, c. 4.*

† *Car. Piso de Morb. Seres. Lug. Bat. 1650. p. 511. in obs. de aq. vitæ liberali potu exanim.*

rituous Liquor taking Fire in the Stomach, died; *Anima una cum flamma ex Ore & Naribus erumpente*; Rendering his Soul in Flames of Fire, issuing out through his Nostrils and Mouth; or, what is consequential to it, cause a *Peripneumonia*, or Inflammation of the Lungs, being so near a Neighbour to the Flame itself.

* Nay, some Physicians I find so strangely fond of this Notion of a vital Flame, that they not only believe it *resident* in the Heart, but mix'd with our Aliment; as Dr. Bennet, *Tabid. Theatr.* p. I. where he mentions *Flammula expandens*; and p. II. *ignicula naturalia*, as generally diffus'd through all the Parts of the Body, the *Extinction* of which they make the Cause of a *Gangreen*, with greater Probability attributable to the Loss and *Destruction* of a plain Heat, that by Means of a *Fermentation* is contain'd in, or deriv'd from the Blood in Animals, and the nutritive Juice in Fruit and Trees, when they come to be *rotten*; by which the common Appearances admit a better *Solution* than Fire can pretend to. Consonant to this, *Cremolinus* saith, nothing can live or be nourish'd without *this* Heat, and placeth the *Calidum innatum* in the Temperament of mixt Bodies; in which, by Reason of *Contradiction*, as he calls it (which the Lord *Verulam* in his *Novum Organum*, styles *Conflictus corporum*, a Fight or Combat of Bodies, to which he attributes the Heat of hot Baths, where the Fire is not visible) there is *Action* and *Passion*: That this Heat is generated, he says, by the Heat of the Temperament of the Heart in the Transmutation, and several Concoctions and

* Dr. Morton and others.

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Distribution of our *Food*; and from the *Heart* is
sent out by the *Spirits* and *Blood* into all the *Parts*
of the *Body*: than which, bating a little *Fond-*
ness to the *Heart*, nothing can come nearer to a
Fermentation; which, probably before the *Heart*
exists, begins in the *Womb* or *Egg* (where the
late Oracle in *Phylick*, * *Sir George Ent*, is of
Opinion, the *vital Spirit* in the *imperfect Heart*,
in the *Matter* of the *Fœtus* (without the *Help* of
any *spermatick Worms*) doth *plusculum effe-*
vescere, and (that *post diuturnam cum sanguine*
fermentationem) gives an *Heat*, but without a
Flame, to the *Blood*, with which it is *connate*,
suitable to the *Nourishment* of the *Embryo*, as
then it is, which afterwards *increaseth* as *Age*
comes on, and *Variety* of *Aliments* makes a *fur-*
ther Supply. I do not deny but the *præ-existent*
Matter of the *Blood*, as the *Water* of *Hot Baths*,
may be *cold* at first, and receive *Heat* from a
Fermentation; which *Heat* it retains as long as it
continues *animate* in the *Body*, and admits fresh
Recruits, and *Refocillation* from *new Matter*,
which it cannot do when *extravas'd*, and there-
fore returns to its *pristine Temper*. And although
a great *Deference* is due to the *Heart*, as a noble
Viscus in the *Body*, for other *excellent Uses*; yet
I will venture to say, that the *Walls* of the *Bath*
may as well in a *manner* be suppos'd to give the
first Heat to the *Water*, as the *Heart* to the *Blood*,
which it *aptly* receives, and *wonderfully* dispen-
seth out to the *rest* of the *Body*, by its *Glory*,
its *Motion*, and that *natural Pump*, the *Pulse*.
The *Heart* seeming to me to be *chiefly* design'd

* Digress. contra Parisanum. p. 183.

for a *Conduis-promus*, a *le Despencer*, or Steward to the whole ; which preserves and *increaseth* the Heat in the *Blood*, begun and continu'd by a *Fermentation*, which raiseth a greater Heat than any *Ignis fatuus* can do ; *beneath* the Heat of which *they* place the Heat of this *vital* Flame.

I have added these few Difficulties that urge this *Opinion* to the many *solid* Objections * *Dr. Needham* hath made against it, which *never* yet have been, nor *ever* can be answered ; the *vital* Flame having been hitherto never more *conspicuous* than in *Fish*, or a *Frog*, which by their own Confession live *without* it. And if that so-much admir'd Astronomer *Kepler* had *obtain'd* his Wish to become a *Tom Thumb*, and enter'd the *Heart* through the *Mouth*, in the *darkest* Night, I doubt he would hardly have brought up News at his Ascent, of the *Twinkling* of a *Star*, much less of the *Shine* or Influence of a *Sun* or *Moon* in the Body.

Besides, if all *Mineral* Waters pass in such considerable Quantities through the *Chambers* of the Heart, as will *afterwards* appear, when I come to treat of *that* Matter ; 'Tis much so *tender* a Flame can *secure* itself against so *potent* an Adversary, when we see a *glowing* Heat and more *rampant* Flame extinguish'd with warm Water, by daily Experience, in *Culinary* Affairs. To which I shall add the *plain* but significant *Definition* of a Fever, us'd by the *old* Physicians, That a Fever is the *Conversion* of the *native* Heat into a *fiery* : So that the *fiery* Heat is *præternatural*, which is still good Doctrine. *Theophrastus*

* *De Form. Fœtu.*

also in his Book of Fire, says, * *That the Heat that is in Bodies animate hath a kind of Moderation, or Mixture of Softness and Tenuity, not as dry Fire, hard and torrid.* † *Calorem in sanguine animalium nec ignem esse, nec ab igne Originem traxisse*, are the Words of the great Dr Harvey. To strengthen the Opinion of *this* Man of Renown, if we go so far back as the Times of *Homer*, who, as a learned & Chronologer of our own makes appear from a Marble Record, liv'd in the Reign of *Diognetus*, sometimes called *Diogenetus*, King or Judge of *Athens*, in the 676 Attick Year, 3807 of the *Julian* Period, after the Destruction of *Troy* 302, and before the *Birth* of our Saviour near 1000 Years, about the Time of *K. Bladud*, King of the *Britons*, and Founder of the *Bath*; in *Il. E. v. 342*, he says, What is immortal hath no Blood, arising from Food, which God needeth not: and the shorter *Greek* Scholiast, commonly called *Didymus*, gives this Reason, *Because Death in Mortals is the Destruction of Heat*; where expressing it by τὸ θερμὸν, *Heat*, and not *Fire*, gives sufficient Intimation, that the *Blood* hath not its *vital* Heat from *that* Original.

I acknowledge the *Soul* or *Life* of *Man* is call'd the *Candle* of the *Lord*, is term'd *Light*; and *Christ* is said to be that *Light that lighteth every Man that cometh into the World*, which to me is no slender *Argument* of his *Deity*. He is that *LORD* that made and bought us; the *Worlds* greater and less, were made by *Him*; and in *Him* as *G O D*, we live and move and have our

* Cap. 3. † De Gen. Animal. p. 153.
 § Sir J. Marsham in Chronol.

Being : but how far that hath Relation to *real* Fire or a *metaphorical* or spiritual Light, 'tis possible may be sooner determin'd by more *able* Divines. And if I understand that Place in *St. John* [with the * *Author de Lumine interno*] of the *general Benefit* that came to Mankind by the *Incarnation* of Christ ; I think I do much better than *some* others do, that make this Place their *Warrant* for a Vent to all the wild Suggestions of a *private* Spirit, under the Notion of the *most* Holy. For the Words ἐρχόμενον εἰς τὸ κόσμον, may not have relation there to ἀνθρώπων, but to πᾶς ἀληθινῶν ; so that Christ our blessed Saviour was the *true* Light, that illuminated the *Darkness* of Mankind, when he came into the *World*, by his *Incarnation* †. But more of this *Flamma Vitalis* in the Sequel, when I shall give some Remarks on that *exploded* Opinion again receiv'd in by the *Author*, to which this *Digression* was only design'd to make a way, That the *Heat* of Hot Baths proceeds from an *actual* Fire under Ground ; who might with greater *Ingenuity* have better submitted to, or *invented* a *newer Hypothesis*, than plaid over again an old *batter'd* Cur, that hath neither *Courage*, *Tongue*, nor *Teeth*.

* Dr. Owen Exerc. 4. p. 113. § 24. n. 3, 4.

† Filius Dei, æternus λόγος, πᾶς æternum, in mundum veniens, per ἐνσαρκωσιν, vitam & immortalitatem in lucem produxit, perque Evangelium innotescere fecit, &c. As the same Author, pag. 45, & 51. n. 11. & p. 3.

And here, had I not regard to the *Quality* and *Fame* of an eminent Person, I could farther insist on the *Vanity* of affirming, not only, *That Hot-Baths turn the Circulation outwardly into the Skin*, but, *That that the Bath evacuates the Semen by a contrary Motion, into the Cavity of the Body*, when the *Serum* must be meant, as is evident to any *considerate* Reader that *observes* the *Discourse*.

But what is *much* more material, is, *That many use the Bath without Advantage, and some go away much worse than they came*. And no wonder, since no *Advice* is taken in the Management of the same; and some of *those* that are well advis'd, and live never so *orderly*, may go away perhaps, to present Appearance, *worse* than they came, and *mend* at home, as many *Instances* prove, that have been *already* given in a *Register*, long since *published* on that Account. The *Virtue* of *bathing* and *drinking* the *Waters*, if *discreetly* managed, continues in the Body a *considerable* Time after the Bath is left, and still *advanceth* towards a *Cure*, 'till quite *subdu'd* and *alter'd* by *common* Meats and Drinks, which is *seldom* done under a *Month's* Time after, and is *one* Reason why the Water *once* possessed, ought not to be *ejected* by any *evacuative* Medicine, unless great *Necessity* shall require; but let alone to *perform* what was begun at the *Bath*, though the Body ought to be well *purg'd*, and by *Phlebotomy*, *Vomit*, or otherwise, *very* well prepar'd, before the *Use* of the same.

And as to the Great * *Diana*, I do not believe

our *Senses* are sufficient to demonstrate any *Single Mineral* in a Water, much less if a *Complication* of many shall be there. And I know *this*, that though our * *Author* affirms, *That the Cross Bath Pump-Water tastes evidently Vitriolick*; 'twill be as hard a Matter to produce any *Vitriol* thence, or make good the Existence of it to any other Sense, as 'tis easy to shew *Common Salt* and *Nitre* to any one that shall demand it. The *Acidity* may be owing to the *Sulphur* and *Salt*, but how far *Vitriolick*, I could wish the *Taste*, or any other Means could demonstrate. I remember the great Philosopher Mr. *Boyle*, that Honourable and Excellent *Naturalist*, was of Opinion, in our frequent Discourse of such Matters, That the *Acid* in the Bath-water was not a *Single*, but *Complex Acid*; and that any thing *Vitrioline*, or perhaps *Aluminous*, with great Caution was to be asserted in any Waters in *England*: *Nitre* and *Common Marine Salt* were unquestionable; but *Vitriol*, unless that of *Mars*, so dubious, that he had rather see it prov'd by others, than assert it himself. The *Vitrioline* Part, if any, being most volatile, goes off in great Part, before the Waters are Cold; and if the nicer Palate of our † *Author* did not taste the Water 'till the Gas was over, I fear that *Vitriol* could not have that evident Taste he pretends it had. But some Mens Senses are better exercis'd; and though the Touch, Sight, and Taste may give sufficient Evidence 'tis Water, yet what is dissolv'd in, or mix'd with that Water, stands in Need of better Demonstration. Neither, in Truth, is the Composition of Salts and in-

* Page 41.

† Page 63.

stupid Earths, which blunt that Sense in *any* Water, the proper Object of our Sense of Taste (though that Sense be chiefly conversant in *Gustabilibus*) against which, *such* as will admit of *no* Appeal, greater Difficulties seem to lie than against a *Microscope* rejected by the * Author. Our Senses, and especially the Taste, are generally more competent and *better* Judges about *simple* Matters than compounded, unless *One* be predominant; and that the Waters of the *Hot-Bath* at *Bath*, were by any accounted *Vitrioline* predominant, this is the *first* Step I have ever known to be made to evince it, to which an *Alkali*, not an *Acid*, makes *so* fair a Pretence.

The *fix'd* Salts remaining after *Calcination*, so far exceed the Parts lost by *Exhalation*, that no *Comparison* can be made to *any* Advantage for the Assertors of *Vitriol*, or any *Acid*, to be the major Part.

I shall not disturb the Ashes of the *Dead*, but safely say thus much, not only without Offence to them, but with the *Good liking* of many now alive, That if we had not had *better* Helps than the *bare Use of our Senses*, we had not had that distinct Knowledge of the *Mineral Waters* in our own Land we now enjoy, and owe in good Measure to the *wise* Industry, and great Charge of the Late truly Honourable and Immortal Mr. † *Robert Boyle*, whose Memory is still dear, not only to *myself*, but to the *best* Philosophers, and all useful, good, and ingenious Persons; nor of those in *France*, justly attributable to the indefa-

* Pages 38, 39.
England.

† *Tryal of Mineral Waters in*

rigable Pains, and *exact* Scrutiny of that faithful
* *Chymist*, whom the King his Master so much valued and *encouraged*, the *Sieur de Clos*.

Now whether the *convincing* Ways of Tryal, taken by these Two *Heroes* in natural Philosophy, bear any Proportion to the *Bravado* of our Author, where he says, † *Though most Baths have compounded Salts, yet some ONE is most predominant, and by THAT I will distinguish the several Sorts of Mineral Waters and Baths*; the Reader may be Judge. I hope he doth not mean that the *predominant* Mineral discovers *all* the rest; and if the *Taste*, which is most agreeable to believe, discovers *only* the predominant, the *other* Minerals in the Composition, will scarce be discern'd by the rest of the Senses; and perhaps the Sense of *Hearing*, which he always excludes as *useless*, may do more Service than the rest, in *conveying* to the Understanding, the *Discoveries* and Sentiments of *better* Enquiries.

Neither am I yet convinced, that the § *Long-Bath* in *Bath*, is the *Hottest* Bath we have; Touch, I know, cannot discover it. For the Water of the Long Bath, being so far distant from that of the King's, with which alone it stands in Competition, that Trial cannot be made of both at once. And that Person that shall pretend to remember the Degree of Heat in the one, when he toucheth the other, had need of a better Memory than I have (which yet I never had any Reason to blame) to assert it; and whoever shall

* *Observations on the Mineral Waters of France.*

† Page 12. § Page 9.

read a Treatise in *Latin*, printed not many Years since, under the Title of *Therma Britannica* (for it doth not appear by any thing more than the Name of the *Long Bath*, that the Author knows there was any such extant) will find at the latter end of the first Chapter, a Table exactly computed, according to a Thermometer, with Spirit of Wine, wherein the Bottom of the King's Bath (the main Spring *all in*) to be return'd at *One Foot, Eight Inches, and Seven Parts*, on the Neck of the Glass, in the *Summer Season*; when the *Long, or Hot Bath*, commonly so call'd, amount-ed only to *One Foot, Five Inches, and Four Parts*, in the *same Season*; *Three Inches*, and as many *Parts difference* on the King's Bath Side; which, I presume, could not so *exactly* be discovered by the *Touch* of the ingenious Author, or any other.

Although I am of *Opinion*, that many *considerable Effects* are produc'd by *Heat*, without *Accension* or *Flame*, yet that *some Hot Waters* do owe the *Origin* of their Heat to an *actual Fire*, where *Eruptions* are *visible*, I never deny'd; and the neighbouring Heat of * *Vesuvius* and *Ætna*, continually burning Mountains, to the *Hot Baths* in *Italy* and *Sicily*, give, I grant, a *sufficient Demonstration* of the *Cause* of the Heat of *those Waters*, and others of *like Circumstance*, from an *actual Fire*: But what he means by that which follows, † *And by Parity of Reason, we may guess, that the same Cause gives the like Heat to Baths of colder Climates, though the actual Fire be not so visible there*, I know not; and judge it as weakly

asserted, as what I find in *another Place*, & *That there is the same Depression of the Earth into a deep Valley at Buxton, which appears at Bath; and that Contrivance, he conceives, was absolutely necessary to come nearer the Central Fire, for the boiling of the Water.* The Author mention'd before, in his *Thermæ Britannicæ*, c. 8. hath spent much Time, and many Arguments, to evince the Non-existence of that chimerical Notion, of an actual Fire kindled, and continually burning in the Bowels of the Earth, without Eruption, and hath there considered this Central Fire, more-especially in relation to an Hypothesis of the like Nature of Athanasius Kircher, in his *Mundus Subterraneus*; where, contrary to what he would have to advance this Opinion, the Center of the Earth is represented, according to the old Philosophy, dense, pure and elementary Earth, Cold and Dry, and so in direct Opposition to Fire and Water; to which I shall here add, to make appear how inconsiderable the Parity of Reason is, that the small Distance from the Top of an Hill to the Bottom should be so necessary a Contrivance, by the Wisdom of the Creator, to set the Pot so much nearer the Fire for a more speedy and effectual Heat; to set this, I say, in its due Light, I shall add, That the Diameter of the Earth is accounted by * Cluverius, and other Modern Geographers, to be One thousand Seven hundred and Eighteen Miles, and Two Elevenths; and by Consequence the Semidiameter from the Circumference to the Center, Eight hundred, Fifty and Nine Miles, and one Eleventh Part. Now what Ad-

vantage or Disadvantage can this *Eleventh Part* of a German Mile; or, if you please, allow a whole One, which being Four of ours, will overmatch, I believe, the Height of any Hill about Bath or Buxton: What, I say, can *this* bring to the Increase or Decrease of a Fire under Ground, that is above Eight hundred and Fifty German Miles at a Distance from it; when the most moderate and modest Philosophers of this Opinion are content with Thirty? And yet this is made a necessary Contrivance of that Being, that is Wisdom itself, and never intended weak Men should pretend to Philosophy, being the Doctrine of the Wise. But we have been so long taught, that because Fire heats, therefore, where ever Heat is, there must be Fire, that we have very few that will seek for, or respect any other Cause of the Heat of Hot Baths, than an actual Fire under Ground; in the asserting of which, they have so many Places, Fables, Subterfuges and Shifts, that ever since I first read the Learned Dr. Forden, I discharg'd the old idle Fancy of the Antients, and became an intire Convert to his Opinion.

'Tis here to be noted, that in the Measures I have given of the Semidiameter of the Earth, I have followed the Account of the Modern Geographers; whereas *Alfurganus*, the Learned Arabian, mentioned by the Two Oracles of that Language, *Pocock* and *Golius*, and other Cosmographers among the Antients, as may be seen in † *James* and *John de Dondis* of the Baths of Padua, allow the Semidiameter of the Earth's Sphere

† *Op. de Baln. p. 94, 109.*

to be above *Three* thousand Miles, and place the Cause of the Heat in less than a *Hundredth* Part of that Space from the *Surface* of the Earth; which is much the same with *Cluverius*, who makes the Earth's *Diameter* to be about 6872 Miles, according to *our* Account.

Besides, 'tis much that all *Rivers*, and more especially the *Sea* itself, the *Bottom* of which lies much deeper than *Bath* or *Buxton*, and therefore fitter to receive the Heat of a *Subterranean* Fire, under so great a *Caldron*, do not grow *Hot*, and the *Sea* much hotter than sometimes it is; which probably may arise from a *Fermentation*, occasioned by the *violent* Commotion, and *strong* Agitation of the great *Variety* of Particles contain'd in the same; when a few *Cold* Springs, cover'd over, choak'd, and buried in *Dirt*, *Glare*, and *Earth*, 'till they can make their way to their *Heat*, not far from the *Surface* of the Ground, and so much more remote from a *Central* Fire, shall be so highly favour'd as to participate so largely of the *Bounty* of a *Subterranean* Fire, at so great a Distance. I call the Springs *Cold*, because I am of Opinion, that all the Water of *Hot* Baths is at *first* Rise originally *Cold*, as appears, when taken from the Springs, in *returning* to the first *Principle* to be cold again; there being no *Tangible* Body, *Solid* or *Liquid*, according to my Lord Viscount *St. Albans*, in *Augmento Scientiarum*, that is *Hot* in its own Nature, but receives *Heat* from another.

Again, the *Equality* and *Evenness* of the Heat of *Hot* Baths, must have a more *steady* Cause than a *fire* can be; for *that*, as it meets with *Pabulum* more or less to maintain it, must be *stronger* or *weaker*, *greater* or *less*, as the *Bitumen* and *Sulphur*

phur succeeds to *foment* it; not to mention the vast Quantities must be spent without *Renovation*, which the continual Depredations of a devouring Fire will not permit, since Hot Baths generally continue still in the same Place where they began, without any Alteration perceptible in Situation or Heat. Neither can the nicer Notion of the finer Peripateticks any way affect the Reason I have, who ridiculously assert both a Fire and a Flame; the Heat of the Fire, through the Sides of the Channels, to melt the Sulphur and Bitumen into the Nature of an Oyl, and the Pabulum so melted, to follow the Flame, as in a Candle or Lamp. To make it further appear in what Credit a Subterranean Fire stood among some eminent Physicians in former Times, as to the Cause of Hot Baths, I shall refer the Reader and the Author too, to the convincing Testimony of a very competent Judge in Matters of that kind, being a great Physician, a Nobleman by Birth, and writing of the Baths where it seems he was born. 'Tis Joannes de Dondis, Nobilis Patavinus, de Fontibus Patavinis, cap. 3. Op. de Baln. p. 97. b. Is asseruit versus superficiem in parte terre corticali, calorem igneum, sine flamma, aut igne accenso, esse causam caloris aquarum Thermalium. His Words are these:

— Si alicubi in terra profundo Mineræ Sulphuris accendantur & inflammentur, videtur necessarium esse, in directo ipsarum, aut in proximo, de Terra Fumos Sulphureos atque IGNES erumpere; propterea quod neque in Sulphure, neque in alia aliqua quantacunque inflammabili materia, potest inflammatio aut accensio procedere & durare, nisi expurgentur & exhalent Fumi, qui necessario fiunt & multiplicantur, ex qualibet inflammata materia, &
plus

*plus ex Sulphure quam ex aliis. Et ideo in loco constructo & clauso, non habente viam, nec Foramina seu poros, unde possit esse Spiraculum & exitus Fumorum, confestim deficit accensio seu inflammatio, in quacunque fuerit materia, quod expertus testificor, & in Sulphure accenso, & in Candetis, Funali & Carbonibus, &c. Et paulo post: Necessarium est si in Terræ Profundo alicubi incensa sit Minera, aut ex illis locis exhalare IGNES, aut insensionem Mineræ deficere in brevi, si non habeat Viam aut Spiraculum; aut sibi violenter viam facere, aperta Terra, prout alicubi in Terræ motibus factum est. Item cap. 7. de Frustis ad Carbonum Similitudinem in Thermis observatis. Puto quod non possunt in illis profundis ardere, & flammam emittere, propter conclusionem loci & privationem expirationis. Where Smoak, Fire, and Flame have respect to the accended Minerals under Ground, and not to a milder Steam from the Surface of the Water, as at the Bath. This is rendered more remarkable, that the Learned Joseph Scaliger commenting on that Place of Tibullus, l. 4. where *ardens unda* is mentioned, ridicules this Opinion in these Words: Pretty ingenious subtle Men! who can no sooner see Hot Water, or a Bath, but presently conclude, that the Heat is from Fire. But this is a Place not to treat, but to remark.*

† That the Waters of Buxton do contain more Salt than the Bath-waters at the Bath; when Dr. Lister found not Forty Grains of Salt in Two Gallons of that Water; and another Observator de Therm. Bathon. Obs. LXVII. found Two Scruples,

or Forty Grains in Half that Quantity of Water at the Bath; 'twill oblige the Author to prove those Experiments defective, rather than to diminish the Observations of such diligent Enquirers.

* That Copper Waters are the Atramentosæ of the Antients, I scarce believe, but think them rather to be Copperas Waters; Copperas, not Copper, being the chief Ingredient in Ink, the Foundation of which is Vitriol, or Copperas, call'd Calcanthum by the old Authors from the Name of Copper, or the more comprehensive one of Brass; though χαλκανθρα, & χαλκή ανθρα are not the same, as † Gabriel Fallopius, in his Tract de Fossilibus, makes fuller appear. And whereas he says in the same Place, That || Calcitis is the Stone, and Calcanthum the Rust, he might have had better Information from the same Fallopius, who accounts Sori, Misy, Calcitis and Melanteria, the Four Species or Sorts of Calcanthum. De Therm. Aq. & Metal. c. 7. p. 243.

But to let pass many Things of lesser Moment, the next I consider, as more material, is, the § Nitrum Calcarium, on which this Naturalist says, the Roughness of the Waters at the Bath doth depend. A Notion, I confess, newly advanc'd, but on as slender Grounds as may be. A natural Mineral Nitre had a long Time serv'd the Turn well enough, and it may be much better than Nitre with a hard Word at the End. I call it a hard Word, because hard to be understood. For it must either have respect to Nitre, so called, which commonly in moist Places adheres to whited

* Page 31. † C. 16. de Flor. æris, in princ.

|| Page 31. l. 15.

§ Page 41.

Walls, from *Lime* in the *Mortar* or *Whiting*, or relation to *Burning*. *Calx*, unless he means *Chalk*, is not so 'till after *Calcination*; both suppose *Fire*, one in the *Kiln*, the other in the *Bowels* of the *Earth*. The first cannot pretend to the *Nitrum Calcarium* in the *Waters* of the *Bath*; and as to the *latter*, the *Reader's* Judgment is inform'd already. And if a *Subterranean Fire* will not help, as hath been shewn before, a hard Sort of *Stone* call'd *Lias*, commonly us'd in the making of *Lime*, and the proper *Lime-stone* of these *Parts*, will never do. For I do affirm upon good *Grounds* and repeated *Experiments*, that Sort of *Stone* hath nothing to do with the *Bath-water* at all. I insist on this the more, because, though *Lime* may be made of many other *Stones*, and some much harder than *Lias*; yet this *Stone* is most in use with the *Lime-burners* about *Bath*, as better qualified than others are, for the making of *Lime*. Now if the *Author* can produce any Quantity of this *Stone*, or any thing relating to *Lime*, out of the *Bath-water*, which must lick from soft *Quarries*, where a very sensible *Heat* hath been felt by the *Diggers* in the *Winter Season*, *Erit mihi magnus Apollo*. And if there be neither *Matter* for *Lime*, nor any *Fire* to work upon it, how can any *Man* in his *Wits* assert a *Nitrum Calcarium*, unless he will fetch his *Nitrum Calcarium* from the natural *Mineral* calcin'd by *Fire* in the *Bowels* of the *Earth*? which, as I have already prov'd, is both *groundless* and *absurd*.

But some *Philosophers* and *Physicians* too, are much like a certain *Magistrate* at the Beginning of the *Reformation*, who having an *Offender* brought before him, reprov'd the *Criminal* with,
Sirrah!

Sirrah! You do Quivo, Quivo, Quivo, and being quite out of Breath in pursuit of the Word, said to his Man that stood by, What's the New Word Toby? who gravely reply'd, Equivocate, Sir. Not that I contemn any New Discovery, if it do not obscure a more antient Truth. If Freestone, an easy tender working Stone, much like what some call Lime chalk, but is not the same, nor fit to make Lime, be enquir'd for about the Bath, there are Workmen enough to tell them where they may find it; which is all the Nitrum Calcarium, or Lapis Calcarius, I know in the Water of the Bath, and bears greatest Proportion among the Non-Saline Principles, and is what the Author calls Lapis Calcarius; when in the same Place he says, The Lapis Calcarius is double in Proportion to the Salts; but extravagantly adds, The other evaporates by boyling. As if nothing remain'd after Evaporation, but what he calls Lapis Calcarius; when Common Salt, and Nitre natural after Decoction, and the Contents separated, pass thro' the Filter into a Lixivium; and after a Second Evaporation, make One Mass, or Body of Salt 'till further Separation; and both in conjunction with Sulphur, constitute a Salt Salino-Sulphureous, the main Ingredient in the Chyme of the Waters plainly demonstrable after every Evaporation. Not but that the gritty Part hath its proper Use, is the greatest Dulcifer, and, in some measure, participating of the Nature of Chalk, the strongest Opposer, and beyond any Alkaly, a Softner, Allayer and Subduer of Acidity, among all the Ingredients contain'd in the Waters: and the Roughness in the Bath-water is rather owing to the Oaker, than to any Nitrum Calcarium suppos'd in the same. Besides, I have a Paper Manuscript,

the Right Use and Abuses of Bathing. 255
containing several *Experiments* about Meats and Drinks, discover'd to me by an ingenious Person and great Traveller, that observ'd the *Nature* of all Esculents and Potulents whither ever he went, and *affirms sancte*, that 'twas the unanimous Consent of all the natural Philosophers he conversed withal, That no Limestone Fountains were wholesome.

* The *Bullula* in the Blood, are much a *Second Nitrum Calcarium* in the Waters, but much more *refin'd*; and how Hot Baths can *agitate*, *rarify*, and by † *Compression* compel, or *propel through the Glands of the Skin* those aerial *Bullula*, I cannot imagine; but wish this great Philosopher would explain, how *Heat* that *rarifies*, doth *propel* by § *Compression*, and teach us, how we may understand the Blood's *Compression* by the *Pulse*, which is the greatest *Thruster* forward by *Pulsion* in the Body. *Compression* in its common Notion, I never heard before was any great Friend to Motion; and therefore our || Author, in his excellent Preface, allows *Compression* to check the *Humours* in their Motion. *Compression* may make a Thing that is *rare* take up, or lie in *lesser* Space, and so may better suit with the *Condensation* of the Antients; but that Hot Baths should *reconcile* Rarefaction and Condensation by doing both, is the greatest †† Virtue I have ever known to have been expected from them.

To omit many other Inconsistencies with himself, I shall only make this Remark on the *Bullula* mentioned in the former Paragraph (by

* Page 81. † Line 4, 5, 6, 12, 13. § C. 2.
p. 40. l. 5. || Page 12. †† Page 81. l. 4. others

256 *An Answer to a late Enquiry into*
others term'd *Globuli*, and peculiar to the Blood) That they must be very *tender*, and cannot retain *that* Name any longer than mix'd with the *Blood*. For if they become so *rampant*, as by their *Elastic* Force to leap through the *Repagulum* of a *double-coated* Artery into the Skin and Air, they cannot preserve the Name of a *Bubble*, but must take some *other* Denomination. And probably these *Bullulae* in the Skin, or, as our *nicer* Author words it, *in the Glands* thereof, after all their *buffing*, may at last *dwindle* into Perspiration, or a *sensible* Sweat; and, I pray, what *harm* is there in a *Hot Bath*, that inclines any one that useth it to a *gentle* Breathing? *Cold*, as our *sage* † Author *elsewhere* more rationally discourseth, would rather *compress*; and therefore *Compression* is more justly chargeable on the *Colder* Baths, than on the *Hot*. Thus we see, when *New Philosophers* forsake *Antient* Notions, without *due* Consideration or *Reason* sufficient, what *Absurdities* many times they commit, and how *awkwardly* they propose their Minds to be understood by *any but themselves*; unless they will have these *Globuli* in the Blood to further Motion, and so the *Circulation* to run upon *Wheels*.

§ Whether *Hot Baths* *thicken* the Humours, especially the *Serum*, or rather *Succus nutritius*, in or *out* of the Blood, and so dispose to *Viscidities*, and consequently to a *Rheumatism* and *Arthritic* Pains, is a Matter *highly* deserves our Consideration. I confess the same *Heat* that melts the *Wax*, hardens the *Clay*; raiseth *Stinks*, and

† *Pref. p. 12.*

§ *Page 47, 48, 82, &c.*

sends forth *Odours*. The *Bath*, like the *Sun*, works according to the *Capability* of the Subject; *relieves* the *Weary*, *strengthens* the *Weak*, and *discusseth* when it meets with *discussable* Matter. And that I may *farther* illustrate the preceding Paragraph, about *Rarefaction* and *Condensation* by the *same* Cause, we shall now examine, whether the Heat of *Hot Baths* do *thicken*, *condensate*, or make more *viscid* any Humour in the Body, since 'tis sufficiently known that they do *discuss*.

To set this in a *clearer* Light than hitherto hath been done, I am *much* of Opinion, that the *Serum* of the *Blood*, as 'tis commonly call'd, or the *Liquor* that surrounds and swims on *Top* of the *Blood*, when drawn from the Body, is not the Matter of *Urine*, but the *Succus Nutritivus*, or *Nutritive Juice*; which, after *Mixture* with the *Blood*, and *Secretion* in the *Brain*, is passed into the *Nerves*, as the *Extract* and *Quintessence* of all our Aliment; the more active, pure, and *spirituous* Part of which enters the *Nerves*, in order to *Sense* and *Motion*, besides *Nutrition*; the crass, *gluey*, and more *viscid*, not passing the *Strainer*, is ejected in due Time, as *Excrement* of the *Brain*, *white* and *viscid*, chiefly after *Night Sleep*, in the *Morning*; much after the *same* Manner as the *grosser* Excrements arise by *Secretion* from the *Chyme*, or *confus'd Mass* of all together in the *Guts*. And as the *Venæ Lactææ*, and what they contain, are not *visible* when the *Chyle* is *pass'd*, nor the *Lymphaticks* or *Lympha*, when empty; so this *Liquor* or *Succus Nervosus* is not discoverable by *Ligature* or otherwise, but in the Time of *Distribution*, which, 'tis probable, is, in good Part,

T

made

made in the *Night*. † Hence the *Language* of the *Dormouse* in the Poet, *Pinguior illo tempore sum, quo me nil nisi somnus alit*: 'Tis generally observed, That the least active and *sleepy* Creatures are commonly *Fat*. And this may be one Reason, 'till a *better* be given, why the *Liquor* or *Succus* in the *Nerves*, is not so demonstrable by *Ligature* on *them*, as the *Circulation* of the *Blood* is on the *Veins* and *Arteries*.

This *serous* *Succus*, or *liquid* Juice of the *Blood*, when extravas'd, will *coagulate* by *Heat*, as I have often try'd, and many others, no doubt, have done the like, in a *Silver* Spoon with the *Succus* held over the *Flame* of a *Candle*, or set upon *Coals* of *Fire*, in any other convenient *Receiver*. But whether the *Heat* of the *Bath* be answerable to *that* Degree of *Heat*, and whether the *Succus* that is mix'd with many other *Humours* in the *Blood*, clothed and defended with *Skin* and *Flesh*, can pretend to such an *Advantage* of *Coagulation*, as that hath which is out of the *Body*, *single* and without any *Impediment*, deserves farther *Consideration*.

Moreover I do observe, That the *sizy* *Blood*, commonly seen upon the *Cold* *Blood* after opening of a *Vein*, in all *Rheumatick* and *Gouty* Persons, chiefly the *former*, to which some eminent Physicians make it a *Peculiar*, is not coagulated 'till the *Blood* is *Cold*, but is *mix'd* with the *Blood*, with which it *circulates*, even in those *very* Persons that have us'd the *Bath*, and have been often bled for that *Distemper* on the *Place*; so that *Cold* seems more likely to *coagulate* this viscid

† *Mart. l. 13. Ep. 56. in Xenii,* —

Matter than *Heat*, which, as long as *Heat* continues in the Body, retains *Fluidity*; but as the Blood grows *Cold*, congeals into a White cakey *Skin* adhering to the *Blood*.

And here it may not be *improper*, if I mention a Case, being the 142^d Observation of that *eminent* Practitioner, *Carolus Piso*, sometime Counsellor and *Domestic* Physician to *Henry* the Second Duke of *Lorain*, to whose generous Soul many *grand* Improvements in Physick are deservedly due, and from *whom* the great * Physician and *Ornament* of his Faculty in this Nation, borrow'd; among others, his Notions in the Comparison of *Blood* and *Wine*. This Famous Person, I say, hath *this* Observation, in his excellent Book *De Morb. a Diluvie Serosa*. §. 5. c. 3. pag. 529. Ed. Lugd. B. " I am well acquainted with
" a Prelate of singular Prudence, who, in the
" Winter-Season, is often troubled with Pains in
" the Habit of the Body, and continually with
" a Catarrh. This Person's Blood did so abound
" with a serous Colluvies, that scarce the Twen-
" tieth Part did subside in the Bottom, that re-
" tain'd the Colour and Consistence of Blood;
" the Remainder, which was Liquor of a watry
" Substance, swimming at Top, was laid over,
" and, as it were, incrusted with a viscid White
" Skin: And such sort of Blood, if it may de-
" serve that Name, I have only once or twice
" observ'd in others.

This Disease he doth not call a *Rheumatism*, because rare, if *known*, above a *Hundred* Years ago, the First Edition being printed by the Au-

* Dr. Willis.

thor 1618, in large Paper in *Quarto*, which I have given, with *other* Books, to the Library at the Bath, though **Riverius* hath Descriptions like it from *elder* Authors, even in the Times of *Hippocrates*, *Galen*, and *Ebusina* (commonly *Avicenna*) though not by the Name of *Rheumatism*. The like was observ'd by Sir *Th. de Mayern*, in one that piss'd Blood, in whose Urine, when cold, was a White Concretion, *Gelatinæ potius quem sanguine affinis*, *Prax. lib. 3. cap. 17.*

I mention this the rather, because *Piso* says, he observ'd the *sizy* Skin to cover the *Serum* only, which, on *due* Examination, he had found adhering to the Blood.

This *Dr. Harvey*, in his *Exercitationes de Animalibus*, calls *Mucago*, found it on Top in the Place of the *florid* Blood, and on *that* Account, by mistake, judg'd it the *best*, most concocted and elaborated Blood, not apprehending a *Disease*, nor that the *Mucago* or Jelly must be *supreme*, the concreted fibrous Blood being cover'd over with the *vitiated* Juice, between which and the *Mucago*, there is very little Difference, as will appear hereafter.

That this is a *Corruption* that lies in the *Mass* of Blood, *Riverius* is plain: † *Sanguis qui detrabitur plane corruptus est, crassus & glutinosus, tum post multas phlebotomias, sero diffluit, ita tamen mutatus, ut sanguinis speciem amiserit.* In the *Gout* he mentions *no* such thing, from which he makes *this* a Distinction, tho' sometimes there may be a *Complication* of both; and a *running* *Gout* may be a *Rheumatism*; as well as a *fix'd*

* *In Prax. med. de Rheumat.* † *Ubi supra.*

Rheumatism a Gout. And since in Monsieur *Nicholas Andry* a French Physician, *Messire Fagon*, chief Physician to that King, hath laid such a Load of Diseases on the Back of Tobacco we are not sensible of, with greater Justice we may return the Rheumatism to France, which was never known so frequent in these Parts, before the immoderate Use of the Wines of that Country; and think this much better Doctrine than the Divisibility of Quantity in infinitum; or that more than Fifty Thousand Worms have been seen in a Portion of Matter, not so large as a Grain of Sand, which is much to the Reputation of that Glass, that can so prodigiously magnify, as to represent above a Hundred Thousand Parts in one Grain distinct, so as to be perceiv'd by the Eye, which I should rejoice to see; or that the Melt of a Cod-Fish contains more Worms than there are Men upon Earth.

Again, I have good Reason to believe, that the sly Matter mention'd before, is not a Corruption only of the Nutritive Juice in Part, according to my Observation; but, as *Riverius* hath observ'd, a total Depravation of the best Blood also, known by the Name of *Sanguis purus*, or *Arteriosus*, in Contradistinction to the *Melancholicus* or *Venosus*, which is always blacker, and at the Bottom of the Dish, and becomes brighter if expos'd to the Air; when the *purus Sanguis* and best Blood, is usually florid on the Top. For the whole Mass of Blood, being compounded of Four general Parts, which the Antient *Galenists* call'd Humours, Two are contain'd in the watery Part, answering to the Serum in Milk, and Two in the caky or cheesy Part, corresponding with the Curd. The Two first the Antients named *Bilis*

and *Pituita*, understanding the *First* aright, but mistaking the *Second*, which seems to be in good part the *Succus Nutritivus*, or Nutritive Juice; the *Antient* Physicians, and many *Moderns* too, calling all the Humours that were white and sweet, by which they made a Distinction from *Pus* that was foetid, by the Name of *Pituita* or *Pituitose*, as that which was *thinner* and more crude, *Ichorous*; and all by the general Name of *Serum*, or a *Serous Colluvies*, not mattering much what the Nature and Constituents of those Humours were, but chiefly minding their Presence, Flux, and Tendency to the Cause of a Disease. The Two other Sorts of Blood in the Cake, they call'd pure Blood, and *Melancholick*. The *First*, suppos'd to be the Blood of the Arteries, continues Red, with a Scarlet Rim or Fimbria in all sound Persons, distinct from the blacker Part, which is always underneath, and thought to come out of the Veins. Now in all Rheumatic Distempers, or Diseases depending thereupon, the Blood extravas'd, is sometimes more dry, sometimes more serous, and both laid over with a viscid White Skin, in the same Place where the best Blood usually is in sounder Persons, and argues a Corruption of the best, which is the worst of all. The watery Part continues round the Cake (now white and black, instead of blackish and red) and contains the Bile, and good Part of the Juice that is Nutritive; but whether any material Part of Urine, in most ordinary Cases, which possibly may pass to the Kidneys another way, I am yet uncertain; betwixt which, and the *Succus* in the Blood, I observe this manifest Distinction, That no Degree of Heat will coagulate Urine. So that with some Caution I received what an Inceptor

main-

maintain'd at a publick Act in Oxford, 1693
[*Quod Urina sit sanguinis progenies*] That Urine
is the Product or Issue of the Blood. That the
Nutritive Juice, and the best Part of the Blood,
are vitiated in a Rheumatism, seems to be most
evident from this, That an Elephantiasis, Lepro-
sy, or any foul Skin is cur'd by the constant
Use of the same Medicines that are used in a
Rheumatism; in the Management and Use of
which, I have had such good Success, as would
tempt a Man in the same Circumstances with Dr.
Fuller, to reveal the Particulars. A Signal In-
stance of which I had in myself, subject to a
Rheumatism and Pains of the Gout, which some-
times for a while returns, but by often bleeding
then in great Quantities, near a Hundred Ounces
in less than Two Months, and in the mean Time,
and afterwards, running my own Course of Me-
dicines, I so alter'd the whole Mass of Blood, as
to free it from Size, and make the upper Rim
as fresh and florid, as in the best of my Health;
as I found, when Mr. Child open'd a Vein for
Tryal, Jan. 21. 1702. and again the 18th of
May following, in a Pound of Blood at each Ve-
næsection.

And here I must again differ from the Famous
Dr. Harvey, who will have the depraved Part not
in the Live Blood, but in the Dead and Corrupt-
ed; since 'tis not to be doubted, but that the
good and bad Blood were both in the Arteries and
Veins in common Circulation, in a State of Union,
'till they come to a Separation; which the Heat
of the Blood and Body hinder'd within; 'till out
of the Vessels, and the Solutio Continui followed,
on its dying extravas'd. Thus both the Bath-wa-
ter, and common Urine, hold the Contents toge-

ther, when *Hot*, and do not deposite any Sediment, 'till *precipitated* by Cold: Which makes good the Observation mentioned before in p. 31.

'Tis *further* to be noted, that the *Cake* of the Blood *sinking*, the vitiated Juice, which Dr. *Harvey* thought the *best* Blood, must needs be at the *Top*; the juicy Liquor the *Cake swims* in at *first*, being of the *same* Nature with the *Mucago* itself; which Name it *best* deserves when Cold, and, in the Nature of a *Jelly*, settles on the Surface of the Blood, which, when *separated* from the Blood, becomes a *Skin*, one of which I have now by me like a *Bladder*, and transparent as *Horn*.

And whereas I placed *this* as a Distinction of the *Succus Nutritius*, that increases *Bulk*, and supplies the necessary *Expences* of Nature from *Urine*, that the latter will *not* coagulate as the *former* doth, by the Application of *Heat*; it doth not thence *unavoidably* follow, that the Matter of *Urine* was *never* mix'd with the *Blood*, which must in some Quantity be sent from the *emulgent* Artery into the *Vein*, as well as pass in *part* by Ways hereafter mentioned to the *Heart*, and so *circulate* with the *Blood*: But the Reason why the *Succus* doth coagulate, is much, because the Matter of *Urine* is not there, the opening of a *Vein* being commonly perform'd in a *Morning*, when the *truer Serum*, or Matter of *Urine* had been *separated* before: Whereas the *Water* on the *Blood*, taken *Two* or *Three* Hours after Meals, is sometimes *white*, from a Mixture of *crude Chyle*; and always, to the best of my Observation, in the *Afternoon*, of a Nature much *differing* from that in the *Morning*. But that the *Succus* and *Urine* are distinct, is not to be doubted. And if

it be true, what is *generally* taught by the most able Physicians, that *Sweat* and *Urine* have the *same* common Cause, or Matter *little* different; whereupon, those that sweat *most*, make *least* Water, and are *jestingly* said, to *piss through the Skin*: 'Tis pretty hard to conceive, unless our *acute* Author please to favour us with *better* Understandings, how the *Succus* can be evacuated by Sweating in the * Bath. If so, I'm sure it must go hard with what he asserts in another Place, † That the Hot Baths at Bath, do wonderfully thicken the Serum; since the Serum he means is the *Succus* or Nutritive Juice, which he affirms to be *spent* and *evacuated* by the Heat of the Bath, the Matter of *Urine* and *Sweat*, having another Original; so that here the Bath must *condensate* and *rarify* the *same* Juice. He was of Opinion before, § That the Hot Baths at Bath, were mischievous, in *evacuating* the Serum into the Cavity of the Body (for so I favourably read for *Semen*) and how *thickening* the Serum and *Evacuation* of it can consist, I would fain be inform'd, *Condensation* as *Compression* looking one way only, by which Motion cannot be accelerated and impeded together.

To give a little Light into what is elsewhere more fully consider'd, being the Result of many Thoughts about the Passages of Urine:

'Tis very probable, that though the Meats and Drinks we take at Meals, make one *confus'd* mix'd Juice in the Stomach, called *Chyme*, the Parts thereof, in some Measure, continue separate and *distinct* each from other; and that the

* Pag. 42, 49.

† Pag. 47, 82.

§ Page 31.

Liquids,

Liquids, especially if taken *plentifully*, pass out of the Stomach before the *Solids*, as having paid their first Fruits to the *Lactææ* of the Stomach (observ'd contrary to the Assertion of *Asellius* the Discoverer, by Dr. *Wharton*, and by him first shewn to Dr. * *Glisson*) descend into the Guts, enter the *Venæ Lactææ* of the *Mesentery*, much sooner than the *other* Part that is left behind, make their way to the *Receptacle* of Chyle in *Brutes* (a Cavity that receives as well the *Serum* as the *Chyle*) and the more solid *Lumbar Glands* in *Man*, and thence goes directly to the emulgent *Artery* (by some Branches of the *Venæ Lactææ* which have been observed to reach *thither*) without any *Mixture* with the *Blood* at all.

'Tis no *less* probable, that the *remaining* Part of the *confus'd* Juice in the Stomach, after some stay there (out of which, Part may pass *immediately* by the *Stomach-Lactææ* mentioned before) descends into the Guts, passeth into the *Milky Veins* of the *Mesentery*, and halts in the *Receptacle* and *Lumbar Glands*, in order to Separation; the *main Use* of these Glands being *Serum a Chylo separatum in adjacentes vel Renes exprimere, vel emulgentes Arterias, quibus ramos mittunt*; which cannot be deny'd, if *these* Glands are not allow'd to be a *Receptacle*.

'Tis *further* probable, that this *last* *confus'd* Mass of Juice contains *Three* Parts; *one* that is to be red, for the Matter of *Blood*; *another* Part of the same *Chyme* not so apt to be red, or at least not so yet for *Nutrition*; and a *third* Part, more thin and serous, for the Matter of *Urine*, utterly incapable of the *Purple Dye*.

* *De Ventr. Tr. post c. 3. p. 134.*

That the *two* former pass from the *Lumbar Glands*, by the left *Axillary* and *Subclavian Branch*, into the *Vena Cava*, and so into the *Heart*, mix with the *Blood*, and continue together, till the *nutritive Juice* is secreted in the *Capital Gland* the *Brain* (to which, with *Hippocrates*, I allow that Name; because though medullary and *sui generis*, differing from the rest, it performs the Office of a *Gland*, which is *Separation*) not sent up to the *Head*, imbib'd by the *Nerves* of the *Brain*, or the *Plexus* of the *Mesentery*, as was the Opinion of *Dr. Glisson* and his Followers heretofore, the Learned *Dr. Charleton* and others.

And whereas the only *material* Objection *Dr. Glisson* hath made against the *Brain*, as the *Organ* first admits the Matter of Nutrition, is the *Smallness* of the *Arteries* that tend that Way; whoever shall consider the *Capacity* and *Structure* of the internal and external *Carotids*, as they are exhibited by the celebrated *Dr. Highmore*, in the 18th Table of his *Disquisitio Anatomica*, and which the ever memorable *Dr. Willis* in his *Treatise* of the *Brain* affirms to contain, not only a *Torrent* or *Stream*, but a *River* of *Blood*, may possibly be of Opinion, that *that* Artery alone, not to mention the *Vertebrals*, is not so *Perexile*, as not to be able to convey a *greater* Quantity of *nutritive Juice* from the *Heart* to the *Head*, to be secreted in the *Brain*, and it may be more than *all* the *Nerves* in the *Plexus* of the *Mesentery* are capable of. And I would beg *Dr. Willis's* Pardon, if it could be had, that I do not admit *his* Hypothesis of the Motion of the *Succus Nutritivus*, forward and backward, upward and downward, by a *contrary* Way of Passing in the
same

same Nerves, since I find no absolute *Necessity* to assert, that the *nutritive Juice* contain'd in the *Arteries*, doth pass any further, *except* in the *Brain*, than their *Extremities*, will carry it; and the *sudden Resection* from *Cordials* and *spirituous Liquors*, may be better perform'd by the *Venæ Lactææ* than the *Nerves*. But that the *nutritive Juice* according to the *Doctrine* in this Paragraph, doth pass by the *Thoracic Milky Veins* to the *Heart*, is evident from an *Observation* I formerly made in *Oxford*, in the *Body* of one *Hall*, a hard *Student* of *Wadham-College*, presently after *Meal*; who, after frequent *great Lipothymies*, and many *Remedies*, at last died; and in the right *Ventricle* of the *Heart*, I found a *Gelly*, under the rude *Shape* of a *Serpent*, occasion'd by the spreading of it into the *Auricle*, *Vena Cava* and *Lungs*, in some *Measure* concreted in the *Heart*, as the *Succus Nutritivus* useth to do over a gentle *Heat*. The like *Concretion* the ever famous *Dr. Willis* observ'd in both *Ventricles* of the *Heart* of a noble *Person*, *de Morb. Convuls. c. 9.* where he writes it did *serpentis cum cauda multiplici, & divisa figuram nonnihil referre*; which probably may be a *Sort* of *Polypus*, observ'd also by *Malpighius*, *Tulpius*, *Bartholinus* and others, as in my *medical Observations* not yet made publick (where you have the *Figure*) I have further declar'd. Whether the *Serpent* sometime since found by *Dr. May* in the *Heart* of one *Penant* that dy'd in *London*, was the *same*, I cannot say, being so long since I have seen his *Account* in *Print*, which I have not by me. Now only *Dr. Andry* mentions *Worms* in many *Bodies* that resemble *Serpents*; and writes *p. 81.* that *Heart-Worms*, which he calls *Cardiaci*, occasion

Trem-

Tremblings, Swoonings, and in Time bring sudden Death. † Another Case he mentions not unlike Hall's: § The Patient had been too intent upon Study Night and Day, and having no Polypus, recover'd of a lingering Sickness, by a Medicine that caus'd him to void great Quantities of Worms by Stool. He further adds, That too much Application of Mind, and over great Efforts of Study, cause Corruption in the Body, more especially when Men set themselves to long and serious Reading presently after Meals. But to come nearer the Point in Hand; In an Exercitation I formerly made upon Nutrition, I have shewn at large the Difference between Life, Sense and Motion, and what maintains these Actions in Man and Brutes distinct from one another, which I close with these Words: *Imperium Nervorum Animale a regno vitali sanguinis plurimum distinguitur. Rubente succo incalescimus, albescente nutrimur. Nervi, Venæ & Arteriæ, vasa invicem distincta, diversam ferunt hac referunt materiam; sub succo hoc nutritio, veterum Rorem, Gluten, & Cambium intelligo; qui succum nutritium, luce meridiana nobis clariorem, sub istis umbris, per transfennam viderunt. Adeo ut sanguis non nutriat, sed nutritionis solum in se, donec ope Cerebri Nervos ingreditur, contineat materiam. Adest tempus, & venturum olim prædixit * Philosophus, quo ista quæ latebant diu, in lucem extraxit dies, & longioris ævi diligentia, &c.* And now to come to the last Thought about the Passages of Urine:

† P. 86. § P. 132. * Seneca.

'Tis not improbable that the *third* Part of the Chyle or Chyme, intended for Urine, leaves in Man the other *two*, when arriv'd at the *Lumbar Glands*, in which it is secreted, and *immediately* passeth into the emulgent *Artery*, by some Branches of the *Milky Veins* deriv'd from the *Lumbar*s ; it being the Opinion of *Pecquet*, the first Discoverer of the *Receptacle* of Chyle, and *Thoracic Ducts* in Brutes (whose *Experiments* 'tis to be wish'd had been penn'd in a more *intelligible* Style, than the *Incondita Barbaries*, as he calls it himself, that now we have) *that the Serum was separated from the Chyle in the Receptacle, and did thence immediately pass to the Kidneys.* And for this Reason the *first* and *second* Sort of *Milky Veins*, from the *Pancreas* of *Asellius* and *Intestines*, seem to terminate in the *Receptacle* and *Glands*, the better to discharge the Matter of *Urine*, and the *Ductus Thoracicus* to take Rise, thence to convey up higher the remaining *Juice* for *Blood* and *Nutrition*. And whereas an Eminent Physician mention'd before, to serve his own *Hypothesis* in the *Anatomy* of the *Liver*, in relation to the *Nerves*, says, *That these Glands are Perpusillæ in other Animals besides Man*: I never yet knew that *Glands* were observ'd in this Place in any other than Man, but in a rare Case, which seldom happens, *when the major Glands of the Mesentery are wanting* ; and find this made a sufficient *Distinction* from the *Receptacle* in Brutes, by the Famous *Bartholinus*, that there is in that a manifest *Cavity*, when the *Glands* are more *Solid*. I confess in the *Cuts* of a young Professor of *Upsal* at Twenty Years of Age, I mean, *Olaus Rudbeck*, a *Swede*, publish'd by *Siboldus Hemsterhuis*, in his *Messis Aurea*, or *Golden Collecti-*

on of *Anatomical Inventions*, Fig. X. Let. q. I find a *Vesicula Chylosa*, or, *Saccus Lacteus*, mention'd, as discover'd by him in *Man*, more answerable in *Cavity* to the *Receptacle* in *Brutes*; whether with or without the *Lumbar Glands*, the *Author* doth not say: But that the *Lumbar Glands*, which the *Learned Inventor* (whose *Fame* and *Fidelity*, notwithstanding all rude and petulant *Clamours*, are beyond exception) seems to make *peculiar* to *Man*, have at any *Time* been observ'd in any *Brute*, in exchange for the *Receptacle*, I should be very glad to be inform'd. 'Tis true, *several* *Glands*, sometimes *Three*, sometimes *Five*, more or less, have been observ'd to *supply* the *Place* of the *Pancreas* of *Asellius* (being indeed but the *same* Thing, only *one* large *Gland* divided into *many*) in sending *Chyle* to the *Receptacle*; but that any *Glands* in *Brutes* have supplied the *Place* of the *Receptacle* of *Chyle*, when the *Receptacle* was wanting, I never yet had the good *Fortune* to observe my self, or read in any *other*. I know *Dr. Wharton* will have those *Lumbar Glands* to be of no more use in *Man* than the *common Glands*, or *Pancreas* in the *Mesentery* are in *Brutes*, to receive the *Lactææ* of the *first* kind, and blames *Bartholinus* for making 'em a *Receptacle*, but where this *Receptacle* is, doth not mention. So that unless he acquiesce in the *Vesicula* of *Rudbeck*, there can be no other assign'd than the *Thoracic Duct*, which is little different, the *Vesicle* of *Rudbeck* being no more than a *Duct*. In the mean time 'twill require some *Grains* of *Allowance* to believe, that a *Ductus* thro' which the *Chyle* passeth, as the *Blood* doth thro' the *Arteries* and *Veins*, and the *Breath* thro' the *Wind-pipe*, should have the Name of *that*, where the *Chyle* ought

ought to make a longer stay; and pretty strange, unless by mere *Opposition*, that *Rudbeck* should mention a *Receptacle* without *Glands*, and *Bartboline* *Glands* without a *Receptacle*, which he would not have done, had he own'd any other *Receptacle* or *Saccus Lacteus* than his *Lumbar Glands*; as is plain from the first Figure, in *de Lact. Thorn. c. 7.* where is this Title, *Receptaculum seu Compages novarum Glandularum*, and at Letter F. *Glandulae Lumbares Receptaculi.*

To make good the Probability of 'a shorter Passage of Urine mention'd before, besides what *Walæus* affirms, that he at *Leyden* and *Riolanus* at *Paris*, as in the End of this *Digression* will appear, had seen some Branches of the Milky Veins, that did discharge themselves into the *Vena Cava* near the *Emulgents*, which must be into an *Artery*, as I have further urg'd in another Discourse in *Latin* on the same Subject, and for that Reason not to insist too much on this: As to the Matter in hand, I think I cannot make use of better Authority, than the first Discoverer of these Glands, who in his Tract *de Lacteis Thoracicis*, describing their Site, says, They are plac'd beneath the Center of the *Mesentery*, under the *Cœliac Artery* and *Emulgents*, near the *Vertebrae* of the *Loyns*, between the Muscle call'd *Psoas*, almost about the middle of the Space between the *Kidnies* and * *Capsulae*. Quas uti & *Renes*, subinde tangit inferior glandula gemella, immediato contactu, vel missis ramis. Tho' Dr. *Wharton*, in a Body perhaps not so fit for the Observation, could not find the *Communication*. And in another Place he

* *Rami ad Capsulas.*

writes, *The Receptacle in Brutes fills the space between the Lumbar Muscles, and reacheth ad Renem ejusque Capsulam.* The same Person, before the full Discovery of the *Lymphaticks*, in a great Dog well fed, observ'd, among other Things, some *Ductus* very much like the *Milky*, sometimes shewing *Milk*, and sometimes *Serum*, to creep to the *Kidneys* by the *Emulgents*: and to compleat the Discovery, he further adds, *Spargabant glandule Lactæ novæ ramulos ad ARTERIAM emulgentem dextram*; whereupon de *Lact. Thor. c. 7. Fig. 2. Letter E.* he hath this Explanation: *The right emulgent Artery brought over to the left Side, to which the Branches of the Venæ Lactæ proceed from the Glands, as is plainly exhibited in the Copper Cut, where,*

A is the *right emulgent Artery*, for better Demonstration brought over to the *Left*.

B The *Branches* of the *Milky Veins* from the lower double Gland, that go directly to the emulgent *Artery* from the *Lumbar*, whence the Liquids pass immediately to the *Kidneys* and *Bladder*.

C The *Thoracic Duct* from all the *Lumbar Glands*, that conveys the Liquids to the *Axillary Branch* of the *Vena Cava*, and so to the *Heart*.

d The *single Lumbar Gland*.

e e The *lower double Gland*.

ff The *Kidneys*.

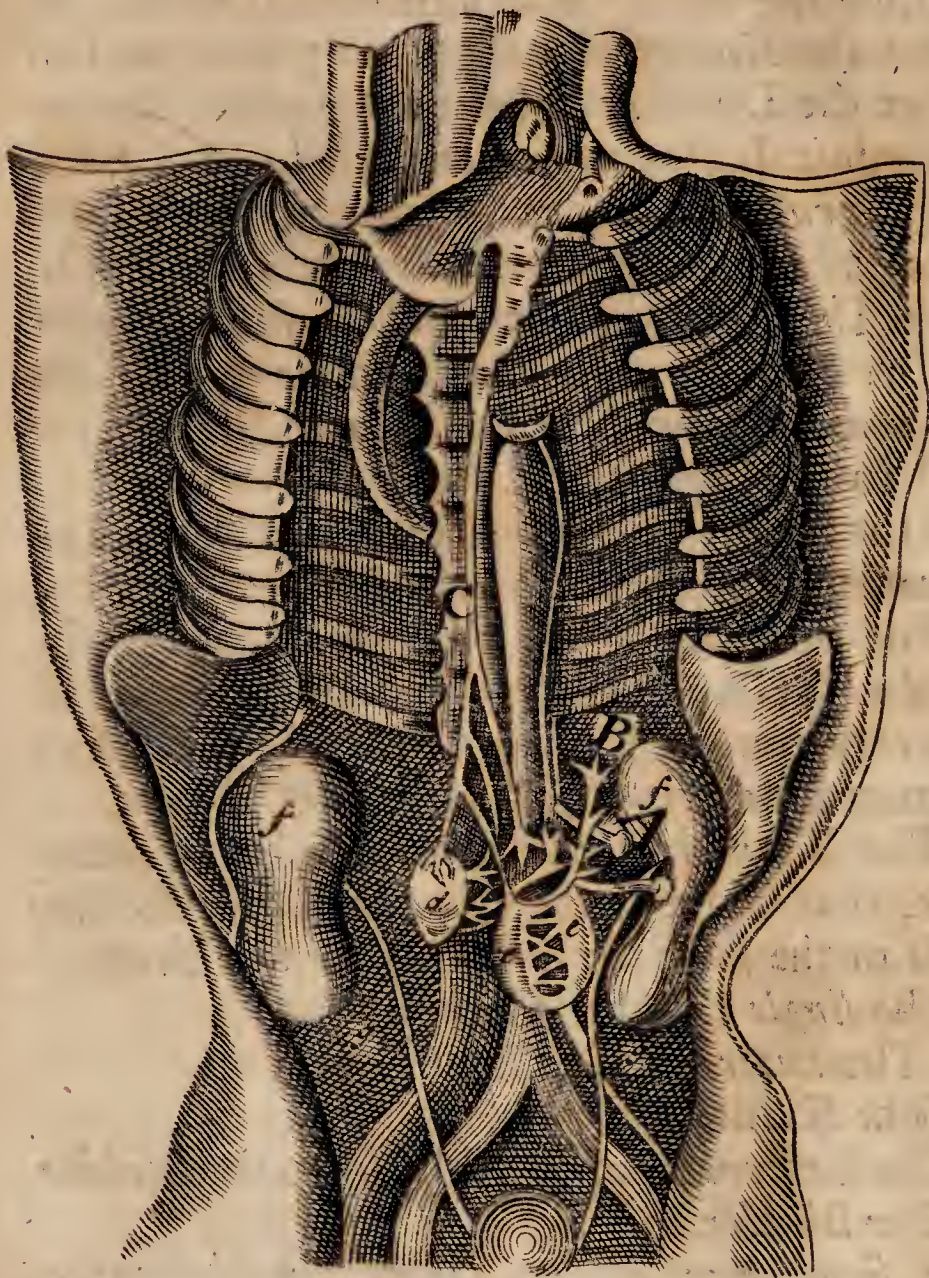
gg The *Ureters* from the *Kidneys* to the *Bladder*.

h The *Bladder*.

The *Semilunar Figure* notes the *descendent Trunk* of the great *Artery*, cut beneath the *Heart*: opposite to which, between the *Back-bone* and *Ductus Thoracicus*, is Part of the *Gullet*.

Witnesses to this at several Dissections, *Christianus Thomæus de Stougard Knight, Great Chancellor*
U of

Reverendo Viro
D. GVILIELMO CLEMENT
Merito Votiva



h

of Denmark, and Conservator of the University of Noblemen and Gentlemen. *Jacobus Fabricius, Olaus Wormius, Simon Paulli, Paulus Mothius, Henricus Fuicen, Jacobus Finckius*, and many other *Regius Professors*. To which the Author adds, *Quisquis tot tantisque nominibus fidem detrahit, ipse æternum cassa sit fide.*

Now whether the *Vena Lactea* only touch or terminate in the part mentioned before, is the main Hinge the Controversy turns upon. I know our English Physicians, with Dr. Glisson and Dr. Wharton, whom they chiefly follow, were not so happy to light on what afterwards hath been discover'd by other Anatomists. Among more, I may instance in the *Vasa Lymphatica* of the Spleen, confess'd, not observ'd by Wharton, *Adenogr. p. 13. Glisson, Anat. Hep. p. 516.* the Learned Dr. Charleton, *Oeconom. Animal. p. 178.* and others, demonstrated by the Author of *Dilucidatio Valvularum in Vasis Lymphaticis & Lacteis*, printed at the Hague, 1665. p. 42. Fig. VI. where it may be noted as pretty remarkable, that this Fifth sort of *Vasa* in the Body of Man and other Animals, were discover'd by Dr. Foliffe in England, Bartholine in Denmark, and Rudbeck in Swedeland, near the very same Time; and a great Contest happen'd between the Two latter, about the Glory of what was due to the former. Whereupon a German Physician made this *Irenicon*.

*Hafnia Barth'linum, Rudbeckum Suecia jactat,
Scotigenam præfert Anglia Folivium:*

*Distribuatur honos, ne quis fraudetur honore,
Divisum Imperium cum Fove Caesar habet.*

In ENGLISH.

Barth'lin doth *Denmark*, *Sweedland* *Rudbeck* please,

England prefers their *Foliffe* to both these :

Divide the Honour, that all may have a Share,

In Empire *Jove* and *Cesar* Sharers are.

And altho' *Dr. Wharton* and others were not so fortunate, we have no Reason to suspect so credible a Person as *Bartholinus*, in what he so solemnly asserts, and had observ'd in several Human Dissections, before such Witnesses, considering the Grand Testimony he hath given of his Fidelity and Skill, in his *Anatomia Reformata*, and many other his Learned Writings, Medicinal and Divine, but especially what he says of himself as to the Matter in Hand: *De Fide nostra & Sinceritate nemo candidus dubitet; nunquam publico imposuimus, aut verba dedimus.* And in his Letter to *Martin Bogdan* against *Rudbeck* the Swede; *Inter minima reputavi sinistra de me multorum judicia maximæ famæ accessione semper aestimavi bonorum applausum, mentum recti veriq; consciam, & publicam cui me emancipavi utilitatem; tandemque Deo innocentiam commisi, eruditis censuram, omnibus candorem, & publicum juvandi Studium.* In which, as in most other Controversial Matters, his Sincerity and Candor appear as conspicuous, as the Purity and Ease of a fluent Stile. And I nothing doubt but this Way of the Matter of Urine passing to the emulgent Artery, and thence to the Kidney, whence some part re-

turns

turns by the *Vein*, and mixeth with the *Blood*, may find a *kinder* Acceptance among the Learned, than the *peculiar Duct* of the noble *Bilsius*, called *Musculus* or the *MOSCH*, which he affirms to convey the *Urinary Matter* from the *Lumbar Glands*, or those of the *Mesentery*, to the *Renal* of *Cassorius*, to which *Bartholinus* had observ'd some Branches of the *Venæ Lactææ* to come from the *Lumbar*s, the *Renal Glands* seeming to me to serve the *Kidneys* much after the same Manner as the *Auricles* do the *Heart*. 'Tis also very probable, that *Urine* in a *Diabetes* becomes sweet, from *Chyle* that passeth out of the lower *Belly* to the *Kidneys*, by the nearer Way. And that Ingenious Learned Physician Dr. *Fuller* knew One, that instead of Water pissed *Chyle*, which 'tis likely came to the emulgent *Artery* by this shorter Passage.

To which I may add, That in an Authentick Certificate I have seen under the Hand of *Samuel Walton*, then Lord Mayor of *Dublin*, with the City Seal, and *Jurat. coram me*, that a Person nam'd *Ruth Knot*, after other afflicting Maladies, had an *Imposthume* in her Right Side, which coming to break and run, She was of Opinion, in the Words of the Certificate, That when she drank any manner of Drink, some part thereof came out at her side, which probably was by this shorter way.

To this good Man and great Anatomist *Bartholinus*, I shall subjoin the Testimony of *Riolanus* the Elder, who, tho' proud and peevish enough in other Matters, yet here is more Calm and Candid, when in *Opusculis Anatomicis* he affirms,

* *Chyli partem a Glandula magna Mesenterii, per Venas Lacteas chyliferas superne, trunco Venæ Cavæ juxta subclavias; & I N F R A juxta emulgentes infundi: Where Infra may, with greater Truth, be better understood of the emulgent Artery than the Vein, which the sagacious Bartholine, on a more accurate Search, had afterwards observ'd, and made Old Riolan more unwilling plainly to confess what he cou'd not deny, lest being a Grandé in Physick, and Dean of the Faculty at Paris, he might be thought to give too great Credence to a King's Professor at Copenhagen, having not long before very stiffly oppos'd, among many other late Inventions, the New Harveyan Discovery in E N G L A N D, on no other ground than a sort of Circulation of the Blood, he fancied was known before to Hippocrates. I must confess there is a Sentence in Plato [τὸ αἷμα περιερόμενον ἐν τῷ σώματι] he might have better insisted on, than the fainter Resemblances in some Words of Hippocrates. And 'tis on all Hands granted, That whatever Glimpses Andreas Celspinus, Padre Paulo, and others in more Antient Times had of the Circulation, the Demonstration was perform'd by the incomparable Dr. Harvey; and his intimate Friend Sir George Ent hath made appear, that what Paul the Venetian had, was borrow'd from the Writings of this Famous Man. Besides, Riolanus and his Son, being of a contrary Persuasion and a cross-grain'd Humour, were never well-affected to either of the Bartholins, as the Pious Son expresseth in his Excellent Preface to the last Edition of his Reform'd Anatomy, 1655.*

To make this Subject a little more *Diverting*, I shall mention the Substance of a Letter from an eminent Physician, then in *England*, who had a long time been earnest with me to proceed on this Design :

“ I hope by this Time, Honour’d Doctor, you
“ have accomplish’d what you intended. That
“ there is a nearer Passage for Urine than is yet
“ discover’d, appears by this Instance: A young
“ Woman, not well in her Senses, came into an
“ Apothecary’s Shop, where she saw a Glass of
“ Quick-silver ; the poor Crazy Maid, taken
“ with the Glittering, swallow’d all, and in some
“ short time after voided it by Urine: The
“ Quick-silver pick’d up by Children was ac-
“ counted Pearls.

Perhaps this Evacuation might have been by *Siege*, and therefore I may mention with greater *Probability* the Observation of *Andreas Laurentius*, Professor at *Montpellier*, who in his Anatomical Questions, writes, He had often seen *Milk* in great quantity mix’d with *Urine*; which might have occasion’d some Enquiry, *How such a sort of Urine could come by the great Artery from the Heart*. For certain it is, that *Milk* will not mix so well with *Blood*, as with a *thinner Latex* ; and if the insipid Part of *Urine* should be convey’d to the *Receptacle* by the *Lymphatics*, and there meeting *Milk*, both join the *salter Serum* in their Passage to the *Kidneys*; the *Aorta* is excus’d, by a shorter way of passing, which *Laurentius* seems to have understood. Or, it might have been *Chyle*, or young *White Blood* not well mix’d with the *Red*; which being of an *Oily Nature*, as

is evident from its burning like *Fat*, when new-pewk'd up and spit into the *Fire*, doth not presently unite with the *old Red*, from which alone it receives its *Tincture*. Hence the *Surface* of the *Blood*, if taken when *Distribution* is making, or lately finish'd, appears *White*, more resembling *Milk* than *Whey*; as among others, I formerly observ'd in a *Modest* *Servant* of *Dr. Toope*, sometime since a laudable *Practitioner* at the *Bath*, who knowing herself *bonest*, desir'd me not to report that there was any *Milk* upon the *Blood*, for fear it might be thought *she was with Child*: Or, it might have been *Chyle*, as *Dr. Fuller* observ'd, transmitted from the *Lumbar Glands* to the *Kidneys*; as *Milk* has oftentimes appear'd in the *Urine* of *Nurses*, and *Women* newly deliver'd. *Est enim Lactis*, adds the same *Author*, *per Urinas expurgandi locus, breviorque ductus ad emulgentes*, l. 7. q. xi. But more of this in that which follows, declaring the great *Good* and *Usefulness* of the *New Invention*, in part from the *Author* *.

From this *Discovery*, appears the *Reason* of many *Affections* in the *Body* of *Man*, which before we were either *ignorant* of, or constrain'd to go a farther *Way* about to understand.

For by a shorter *Passage* 'tis plain, how *Promachus* the *Macedonian* could drink *Four Gallons* of *Wine* at one *Sitting*, others say, at one *Draught*; *Novellus* the *Roman* *Tricongius*, *Three Gallons* at one *Heat*, in the *Presence* of *Tiberius* (who in his younger *Days* being a great *Tipler*, instead of *Claudius Tiberius Nero*, got the *Name* of

* *De Lact. Thorac.* c. ix.

Caldius Biberius Mero) and *Bonofus* the Drunken Emperor, by *Aurelianus* call'd the Pitcher, exceed them and all Mankind in drinking, and in a very short Time after render it again by *Urine*, as did *Bicongius*, Tully's drinking Son, when he drank Two Gallons, which was his usual Custom.

The way by the *Liver, Heart, Arteries, Emul-gents, Kidneys, Ureters* and *Bladder*, commonly receiv'd and depended on, is much too long for so quick an Evacuation. And tho' *Aquapendens* labour'd much to find a shorter Way to the *Liver*, by the *Veins* that derive from the *Stomach*; and *Piso* and *Conringius* to discover a nearer Passage to the *Spleen*: The first lost its Credit when the Circulation was discover'd, and the latter could never be seen by any Credible Person, being only conjectural Products of their own Imagination.

It appears also in a legitimate *Diabetes*, why any sort of Drink, especially the more *penetrating*, arrives so soon at the *Kidneys* and *Bladder*, in a manner, the *same* as when taken in at the *Mouth*.

This, besides the Testimonies of *Galen, Tral-lianus, Ætius*, and others, is confirm'd by latter Experience.

Amatus the Portuguese * mentions one much given to drink Wine in great Quantities, and soon voided the same by *Urine*, without Alteration.

Hercules Saxonia † saw a noble *Venetian*, that usually drank at Dinner Thirty-four Glasses of

* Cent. 2. Cur. 94.

Prælect. pract. part. 2. c. 34.

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Wine for many Years together, and voided it
as quickly.

Victor Trineavellius || mentions one that drank
so much Cold Water in a Fever as caused a *Diabetes*. The Water he made was nothing different, he says, from *common* Water, in Consistence, Colour, Taste, or Smell.

I somewhat doubt whether this was a true *Diabetes*, because the Taste of the Water was not alter'd, as now is usually observed in *that* Distemper: He was Brother to a Cardinal, and lost his Life by drinking Water too cold, as the Author declares*.

Zacutus Lusitanus † hath a Case exceeds *that*, and almost *Belief*; that a Person he knew, drank Ten Quarts of Wine in an Hour's time, and that it came away by Urine, as *clear* as he drank it.

An Abbess § did the *same*, when she drank any kind of Liquor in her great Drought, from a *Diabetes*, and voided all Sorts of Liquids the *same* as she took them.

Salmuth ** observed in a great Drinker of Wine, that when he was full, he did commonly void it Crude in Substance; both Colour and Smell the same, but would not taste it.

|| Prax. l. 10. c. 2. Et Epist. xv. Theoph. de Urinis. Gr. & Lat. cap. 5. p. 78. de Diabete.

* Interiit Frater illustrissimi Cardinalis Pisani, neque aliquis ibi fuit qui non judicaverit, id ex potuminiū frigido accedisse. Trinc. Ep. & Conf. p. 825. (Folio.)

† Prax. Adm. l. 2. Obs. 71.

§ Lady Abbess Muriani, Trinc. Ep. 15.

** Cent. 2. Obs. 95.

Benedictus Sylvaticus, that great Practitioner, told the Famous *Dr. Bartholine**, when he was at *Padua*, that he saw a Person piss *Claret*, nothing different from what he drank.

The same Learned Physician *relates*, that being *troubled* with the Stone, in a great Fit, which gave him much *Torment*, he drank some *Rhenish* as a Diuretick, which came from him very *clear*, and continued so in the Urinal for a considerable Time, without *Alteration* in Colour or Substance.

So that let Practitioners lay the Blame as long as they please on the Indisposition of the *Kidneys*, the *Laxity* of the Passages, the *Weakness* of what they call the *Attractive*, *Retentive*, and *Commulative* Faculties, they can never give Satisfaction, unless by a *shorter* Way of passing, how *these* and *other* Liquors taken into the Body can come from it so *suddenly*, without *Mutation* of Substance, or *Mixture* with the Blood, as hath been *observ'd* in Countries where *Wine*, not *Beer* and *Ale*, was a common Drink.

By *this* also we understand how *Milk* or *Chyle* can come by Urine. *Nicolaus* † the *Florentine* saw a Young Soldier of Thirty Years of Age, that *every* Day made a great deal of Urine, that had a *white* Bottom like coagulated Milk; the Urinal was half full of such a white *cloudy* Substance, with *clear* Urine on the Top, without *Ulcer* or *Imposthume*. *Felix Platerus* § relates

* De Laet. Thorac. c. 9. p. m. 75.

† Serin. 5. tr. 10. c. 21.

§ L. 3. Observ. p. m. 836.

of himself, that he made Milky Urine for a long Time together, without *any* Inconvenience; and that upon Settlement, One or Two Spoonfuls of something *White* did remain at the Bottom no thicker than *New Milk*, which was not the Product of any Disease. Many other Things are mentioned concerning white *Milky Urines* in *Actuarius* † and *Theophilus* §, lately put forth by myself in *Greek* and *Latin*, printed at *Leiden*, 1703.

'Tis easier also *this* way to understand, why Medicines against the *Stone* or *Gravel* in the *Kidneys* give *Ease* so *soon*, and why *Provocatives* have so *quick* an Effect on the *Emulgents* and *Spermaticks*, which otherwise would lose their *Virtue* by a *longer* Circuit.

By *this* way *Diureticks* retain *Colour* and *Smell*, such as *Turpentine*, *Asparagus*, *Cassia* and *Juniper*: To which I may add, a *pretty* Story of *Actuarius* his *Servant**, who, when he was sick, being nice and morose, was compell'd by his Master to take the *Bitter Troches* mix'd with *Oxymel*; upon which he made *Black Water*, and was afraid his Master had kill'd him by giving him *that* Medicine.

Besides, no Man can tell, if not by a *shorter* Passage, which way many *strange* Things have come by *Urine*, that have been swallow'd the same way with our *Food*, and could not possibly come thro' the *Heart*.

† De Præviden. Urinar. l. 1. c. 2.

§ De Urinis albis c. 6. χρῶμα γαλακτώδες.

* De Jud. Urin. l. 1. c. 20.

The Story of the *Venetian* Virgin is as Notorious, as that of the *Ephesian* Matron; she swallow'd a Silver *Bodkin* Four Inches long, which remain'd Two Years within her Body without *Offence*, and afterwards voided it by *Urine*, crusted over with a *Stony* Matter. This is mention'd by *Schenkius* †, *Sanctorius* §, *Paræus* **, and others.

Hairs have been often voided by *Urine*, *Parasly* *Roots*, *Fungus*, *Flies*, *Aniseeds*, *Winter Cherry-Stones*, *Barly Husks*, *Small Coal*, *Green Herbs*; and what is very remarkable, most part of a *Sallad* eaten at Supper by a Maid at *Amsterdam* came from her by *Urine*, as was observ'd and reported by that celebrated *Anatomist*, *Johannes van Horn*. To which I shall add what I had from Mr. *Henry Dyer*, sometime Surgeon to *Bellot's* Hospital in *Bath*, that he saw *Broth* with *Marigold* Flowers plainly appearing in it, come from a Patient he us'd to dress in that Hospital, who had an *Ulcer* in the Back or Thigh.

I could cite *Authors* for every one of these Particulars, if I thought it necessary; but I now forbear.

Further, hence it may appear why great drinking in some short Time brings the *Dropsey*; the Coat of the *Peritonæum*, with which the *Milky Glands* are involv'd, being fill'd too full, whence the *Liquors* break out into the *Cavity* of the *Belly*, as was sometime observ'd by an ex-

† Pag. 3. Obs. 6.

§ Meth. Vit. Err. l. 4. c. 11.

** L. 24. c. 19.

cellent Anatomist * in an *intimate* Friend. Neither is there any *other* more probable Reason for the way of Cure of a Droply by Diuretick Remedies, and terminating by Urine; when fusing of the Blood in Baths, or otherwise by Heats and Sweats, proves often *dangerous* and sometimes *fatal*. But above all; the great *Atrophies* that attend sickly Persons and cause *Consumptions*, are more owing to the Faults of the *Milky Veins* and *Glands* than to any *other* Cause whatsoever, by which the Parts that shou'd be *duly* nourish'd, are too much increas'd or *diminish'd* in bulk: This appear'd *plainly* in a Body sometime Dissected, in which every Part besides the *Liver* wasted. The *Lungs* too soft and and flaccid, were spotted like Marble, a Tumor on the *Groin-Gland*, the *Foot Gangreen'd*, with many other Signs of an ill-habit of Body. One of the *Thoracic Glands* was well, the other *sick*, Red and Inflam'd like a Phlegmon.

The *Liver* and many of the *Meseraic Milky Veins* sound, the *Milky Thoracic* empty, flag, and in much worse Condition.

Many *other* good Uses of this Discovery may appear in Time; and if any Person can produce a more *certain* shorter Passage from the *Stomach* or *Guts* to the *Kidneys* than I have propos'd, by which those Appearances in Nature, and perhaps many more, may be better solv'd, I shall be so far from *Envy*, that I shall *rejoice* at his good Fortune, and own it with as much readiness as I have done the *other*.

* Th. Bartholin. de laet. Thor. c. 9. p. m. 81.

Neither shall I be so ill-natur'd to act over again the Part of *Riolanus*, who so lightly esteem'd the Discoveries were made by *Neighbours* he thought so much *inferior* to his own Nation; tho' (not to say any thing of *Britain* here) if we believe *Suaningius*, the *Danish* Chronologer, the Kingdom of *Denmark* was long before the Rise of the *Merovian* Family in *France* (*Anno Christi* 420) by *Pharamond*, beginning *Anno Mundi* 2910 and 1038 Years before the Birth of our Saviour*.

In the mean time, till that be done, this may suffice to shew the *glimmering* Light that went before: And if from a more *happy* Experiment in Anatomy since, I have again reviv'd, and perhaps *demonstrated* a Thing very useful in the *Oeconomy* of Man and other Animals, as the *Immortal* Dr. *Harvey* did the *Circulation*, which former Authors by Words only and faint Expressions may have *pointed* at; it may encourage Physicians that began to grow *Lazy*, to Study more, and Read *Books* as well as *Men*; from the Fable of the *Cock*, who turning up and down an useless *Heap* of Earth, lighted at last on a *Pearl* of no common Value.

And had I not cited *good* Authority, I might have been thought *either* to have vented my own Fancy, or forgotten what in Times of Study I had formerly Read. The *idle* Opinion that possesseth most Men of the Faculty now is, That all is done by *former* Authors, and yet most

* *Confirm'd* by *Georgius Sadolinus*, *Jonas Koldingensis*, *Claudius Lyfander*, a *M. S.* in the *Royal Academy* at *Copenhagen*, and the *Sueogothic Chronicle*.

ungratefully, will not vouchsafe to Read their Works, nor consider the Truth of what Seneca says, *Multum operis restat, multumque restabit*. There is yet a Reward left for Diligence and Industry in Anatomy, and the Chymical and Methodical way of Practice; and those that speak so briskly of reducing Physick to so narrow a Compass as Four Things [*Mercury, Opium, the Cortex and Steel*] do just the same as Author-Jobbers did heretofore, that Epitomiz'd Books, by which after-Ages were sure to want the Original, as in Trogus, Verrius, Pacuvius, Epimenides, Ennius, Menander, Lucilius, Cato Major, and many others; of which, as a Table after Ship-wreck, the miserable Fragments do remain, we sadly experience.

I shall only mind these Physick Book-Worms, that they are well discover'd and treated by a late Author on that Subject, in these Words:
 * “ Some pretending Men make the whole Art
 “ of Physick consist in compiling Ingenious
 “ Systems, and preferring their own Imagina-
 “ tions before whatever the Experience of our
 “ Predecessors have been able to inform them,
 “ which they will not take the Pains to Read;
 “ the Ignorance of which is certainly very much
 “ to the Shame of those that ought to know more
 “ than Vulgar Physicians.

I further add, The Discovery was made in Denmark, the Illustration only mine, and may serve at least to revive so much of a rare Observation, if not give a Whet to a farther Enquiry.

But to leave this Digression, which chiefly respects the ordinary Passage of Urine, nothing

doubting but that in Cases *extraordinary*, if not in great *Drinkers* of potable Liquors, mention'd *before*, yet in those that drink Water at the *Bath*, and other Places, with more Discretion; some Part of what they drink may enter into, and alter the Blood, passing by the Thoracic *Duct*, and Subclavian Branch of the *Cava* into the Heart (but not without apparent Hazard of extinguishing a *vital* Flame) besides what may pass out of the *Emulgent* Artery into the Vein, and circulate with the Blood, according to *that* Doctrine. And, indeed, this *collateral* Way of Passing seems more *natural* and easy, than a *perpendicular* Ascent in an *erect* Posture in the Day-time; whereas the *Chyle*, and other Juices mix'd with it, may have a *better* Advantage of Passing to the Heart by the same *Ductus* from *another* Sort of Posture of the Body in the Night. But to leave this *Digression*, of which I have *elsewhere*, in the * *Prolegomena* to *Theophilus*, *Ὁρίων* (lately publish'd) more fully discours'd; and return to the *viscid* Matter in the Rheumatism.

To put the Debate out of all *Question*, whether Bath-Heat would *coagulate*, I caus'd a considerable Quantity of the *Succus*, commonly call'd *Serum*, to be separated from the *Blood* of a Rheumatick Person, and put *some* into a slender long Vial, *more* into a thin Bladder well bound, and laid *both* upon the hottest Springs of the King's-bath, from *six* at Night to *six* in the Morning, and found the Fluidity to continue in *both*, with little Alteration of *that* of the Vial; but the Transparency of *that* in the Bladder, alter'd

* Or Preface.

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somewhat to the Consistency of a turbid Whey,
which the Flame of a Candle did soon coagu-
late.

'Tis further to be *noted* in this Experiment, that in the same *Succus* taken from the Springs, preserv'd and expos'd to the *cold* Air in the Winter, some *Coagulation* was observ'd, which did not appear while the *Succus* was *Hot*; whence to me it seems very probable, that the overheating of this *Succus* in the Body first, and *chilling* of it afterwards, which the common People call *Heats* and *Colds*, is the *truer* Cause of Rheumatic Distempers.

The same Sort of Blood I have observ'd in *Cooks, Smiths* and all Sorts of *Firemen*; and in labouring Cattle, as *Horses, Oxen, &c.* and seems to owe its *Origin* to no other Cause.

Much of the same Opinion is Dr. *Musgrave*, only he thinks *Cold* * in this Distemper to precede *Heat*, and affirms that Sort of Rheumatism that attends the *Gout* to proceed from *Cold*, which in some short Time, after great Exercises, brings a *Lentor*, which we commonly call a *Size*, upon the Blood: What I have found *most* successful in the Cure, are Medicines taken from *Fumitory, Antimony* and *Elder*, as the Cases mention'd in my *Observations Medical* do make appear. The *like* Experiment I made upon *Eggs*, and found little or *no* Alteration in the *White*, by the Springs of the *Bath*.

* *Semper incipit a Frigore, causa hujus affectionis evidenti fidissima, ex qua celerrime Sanguini præcipue vero ab exercitationibus incalescenti, Lentor inducitur. De Arthr. Symptomat. Dissert. c. 2, Art. 2.*

* What relates to the great *Explosion* of Spirits in *Convulsions* from the *Heat* of the Bath, which is the *grand* Objection of the famous Dr. *Willis*, in his Book *De Motibus Convulsivis*; I have return'd Answer to all the Cases therein mention'd that concern'd the *Bath* on another Occasion, which I intended to have annex'd to this Discourse; but considering it was the Doubt of another Person, I have confin'd myself in *this* Apology, to what I find in the *Enquiry*

In the *mean* time I cannot but think, with the observing Author, 'tis a great Inconvenience, that there is not a more constant, *steady* Heat generally kept in the Baths at *Bath*, the *main* Cause of Offence in *Convulsions*. For the sudden *Increase* and *Decrease* of Heat, chopping and *changing* the Springs, adding or *subtracting* Water, to make the Bath † *Hotter* or *Cooler* at Pleasure, as it occasions *Exacerbations* in many Diseases, chiefly *Convulsive*, and in *Hypochondriac*, *Hysterick* and *Nephritic* Passions; so it frustrates many other Measures may be taken for the Patient's Good.

This Way of letting in or *keeping* out the *main* Spring, was at *first* design'd to prevent, what was usual in other Places, any Mixture of *Cold* Water with the Water of the Bath; which was then more under Government of such Persons, as had a more *immediate* Care of the Bather's *Health*: but since the Management of the Bath hath fallen into *other* Hands, they will order Baths as *they* please, without the Knowledge of a Physician; yet that some *Alteration* in Heat is necessa-

ry, I readily grant, though not on a *slight* Occasion, or at the Request of every *single* Person.

The *Long Bath* (commonly, but improperly, call'd the *Hot Bath*, when all the Baths are *Hot*, upon which I thought fit to *alter* the Name) is the *only* Bath in the City that cannot be *vary'd* as to Degree of Heat. The *Cross Bath* is the most *temperate* Bath of all, and temperate enough for *any* Person, tho' the * Author seems of another Opinion. This Bath ought to be kept *temperate* with the Water arising from its *own* Springs, not taking from the *Long Bath* what it cannot well spare, nor advancing its *own* Heat above the Degree of *temperate*; that the Physician may be more *steady* in his Advice, and the Patient so advis'd receive the *greater* Benefit: For 'tis the *temperate* Baths that are of most *diffusive* Use, not only to the Generality of Men, Women and Children, but also to correct the *Excesses*, and supply the *Defects* of the *Hotter* Baths here, and the *Colder* Waters in other Places.

And had I pretended to so great a Deference to the *antient* Writers (whom I very much esteem) as our *Learned* † Author doth, I should have thought I had much offended in not allowing the *Cross Bath* to be *temperate*, and (the contrary to which is so evident to every Person) *not to moisten*.

Aristotle, accounted the Prince of *antient* Philosophers, in his Doctrine of the Elements, makes *moistening* inseparable from the Nature of an *Humid*. The same Philosopher in his History of

Animals, and *Athenæus*, l. 7. use the Word *ὕγρον*, or the *moist Thing*, for Water. *Homer*. *Od. A.* & *Oppian in Halieuticis*, call the Sea *ὕγρον*, or the *moist, wet Element*; and therefore with greater Reason in * *another Place*, but without any great Consistency with *himself*, our Author will allow the *temperate Baths to warm and moisten*.

Page 9. he says, *The Cross Bath is much too hot for a Temperate Bath*; and Pag. 56, *Baths by their Temperate Heat warm and moisten*. So that he seems to conclude, that since the Cross-Bath hath not a temperate Heat, it doth not moisten. Now what that is which restrains any Water Hot or Cold, or any Bath, *temperate* or not, from *moistening* any Thing that is put into it, our great Philosopher would oblige us to inform us. The only Reason why the Cross-Bath is not always temperate, is, because it too often receives *over hotter Water* from the Pump of the Hot Bath; when the Water from its own Springs is *temperate* enough, and doth not tender the Skin as other Baths do; the Pores also being render'd not too open, nor the Sweat violent, good Effects are with more Security perform'd there than in a Colder Bath, beneath a Temperate. Pumping ought to be very cautiously us'd on the Head in hot Distempers, being more agreeable to Persons of Cold Constitutions, as this noble Author † very well observes. The Naps of the Neck, Shoulders, Chine, Stomach, Belly and Hip, may receive a greater Number of Pumps, the Limbs and Joints fewer: and if the Pumper was

* Page 56.

† Page 46.

guided by the Parts of an Hour, the Patient might receive much *greater* Benefit. This was the antient *Way* and *Custom* here, before *Pumping* succeeded in the Place of the *Douse*, which was not always *safely* attempted. I have read of *One* that, before *Pumping* was in Use, lost his Eyes by a Defluxion occasion'd by the Fall of the Water on the *Head* by Bucketing. And Dr. *Mason* got no great Good by Bathing or *Pumping* in an Apoplexy, as this Expression in his Epitaph makes manifest; *Ad aquas has medicas iter instruit, Apoplexiæ (heu frustra!) in medelam, unde mens tandem corpore soluta, purior, velut è Balneæ, ad cognatos Spiritus evolavit.* Lady *Nichols*, *Salutem hic quarens, invenit mortem*; and the Learned Dr. *James's* Epitaph, calls these Waters *Fallantes*. But I forget I am writing an *Apology*.

I agree with the *ingenious* Author, that the Waters of the Bath are *best* drank in Seasons most free from *Rain*; and therefore in *Frosty* Winters and *Dry* cold Seasons they are more effectual, than in *Wet* and *Open* Weather. *March* and *May* are Months generally without Exception, and *any* Month so qualify'd *after* or *before*.

The unreasonable *long* Stay in the Bath at *one* Time is a *great* Abuse; an Hour, or between that and *two*, is sufficient; longer stay debilitates, and procrastinates the *Cure*. *Antonius Guainerius*, in his Discourse of Baths, mention'd *Op. de Baln. pag. 43.* determines the Time, 'till the *Fingers* begin to shrivel: *Semper in Balneo tanta sit mora donec Digitorum pulpæ in rugis contractæ fuerint, cap. 4.* Yet how much longer many Persons commonly stay in the Bath to *hasten* the *Cure*, and find the *contrary*, I need not mention;

tion : 'Tis therefore well observed by the Author,
* *That bathing 'till the Parts begin to swell, nourisheth them ; but longer Continuance brings a Waste.*

Night-bathing, unless to the Meaner Sort of People that eat and drink but *little*, and cannot do otherwise than live a *temperate* Lite, if not prejudicial, is of much *less* Use than bathing in the Morning : And whereas the Author † commends this to the Practice of the *Gentlemen* that come to the Bath for *Recreation* ; he ought to consider, that many *Gentlemen*, and most *Noblemen* eat *late*, and sometimes *drink* ; so that the Body cannot be *empty*, nor in *such* Condition as the *Bath* doth require, as the Author well observeth in *another* § Place ; and therefore it seems more advisable to *forbear* the *Bath*, or use it at *such* Times as others do, that expect *Benefit* from the same.

That the *End* of the Spring and *Beginning* of Autumn, || are the *best* Times of Bathing in *Hot-baths*, not to hinder a *Resort* to *Buxton*, I grant ; but that the *Summer*, Part of *Autumn* and *Winter*, too, have prov'd beneficial to *Bathers* at the *Bath*, the many Instances *already* publish'd in a *Register*, containing two compleat *Centuries* of *Bath-Cures*, most my own Patients, to which a *Third* had been added, which was the *only* Copy and mis-carry'd at the *Press*, do sufficiently declare.

And whereas the Influences of a *Dogged Sy-rius*, are generally more dreaded than the *kinder* Heat of the Sun, 'tis well known that the Heat

* Page 64. † Page 53. § Page 3.

|| Pages 46, 47, &c.

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of the *Dog-Days* is oftentimes so allay'd with the
Tears of *St. Swithin*, that the Weather rather
seems an *Autumn* before its Time, than the *Over-*
heating Season of the *Summer*, which was usually
made the *Vacation* at *Bath*.

That *Autumn*-bathing so much *opens* the Pores,
as to prejudice the Bathers in the *approaching*
Winter, which he gives in caution to his Coun-
trymen for their *greater* Benefit, hath as little
Sense or Reason in it, as * *That the Cross-Bath*
doth not moisten, because 'tis not temperate.

To sum up all, I shall *ever* write about the
Bath. " Though Common Good and *Equity* in-
cline me to desire that the Hot-Baths, tempe-
rate and cold, may have all their due and pro-
per Uses, yet the colder Baths being most ad-
vailable in hottest Weather, the Hot-Baths at
Bath have the Advantage of colder Waters of
Buxton, Litchfield, St. Chad, or elsewhere, by
Nine Months in Twelve, and all ought to be
us'd with good Advice, in proper Seasons.
To be brief, Cold-Baths may better rectify
and suppress the wild irregular Motions of the
Blood and Spirits, where they are exorbitant,
as in Mother, Spleen, Convulsion, Vapours,
Rheumatism, Manias, Phrensys, Calentures,
and other Distempers, with which *Thermæ* do
no not agree; over-rule Heats, and moderate
the mad Efforts and Extravagancies of Nature
too much upon the Fret: But what Friends
they have been, and still are to nervous Parts,
so numerous and useful for Sense and Motion,
in Fibres, Membranes, Integuments, Liga-

“ ments, and other white Parts commonly call’d
“ Spermatick, for which Baths of another Kind,
“ with greater Success, have been handed down
“ to succeeding Generations, since the Days of
“ *Hippocrates, Celsus, Galen*, and other Princes in
“ Physick, ’tis not difficult to determine.

Besides, no Cure from *Cold Water* is so considerable among the *Romans*, as that of sickly *Augustus* by *Antonius Musa* in *Distillations*, and the sore Eyes of *Horace* from an Inflammation; whereas *Cornwel Water*, in the Suburbs of *Bath*, any *Cold Water* elsewhere, or any old *Woman’s* Receipt for a Water for the Eyes, might have been as *Famous*, and occasion’d a * Statue set up by *Contribution*, had it *then* been known and us’d by *Cesar*, who in a *desperate* Condition happen’d on Relief by such Means, of which the *Historian* could give no better Character, than of a *contrary* and *dangerous* way of Cure; as it afterwards prov’d to young *Marcellus*, whom the Author, in the Epistle Dedicatory to his Grace the Duke of *Devon*, affirms, That *Musa*, in plain Terms, *K I L L E D* by *Cold Bathing*, but *Six Months* after he had cur’d *Augustus*.

A publick Loss, if that *Marcellus*, as is most probable, was the Son of *Octavia* Sister to *Augustus*, whom he intended should *succeed*; and may renew our Grief, for the *untimely* Death of that *hopeful Princeps Juventutis*, the late Duke of *Gloucester*.

Tu Marcellus eris, magnæ spes altera Gentis.

* *Ære collato*, Suet.

But to do the *chief* Physician to *Augustus* Right, *Marcellus*, Nephew and adopted Son of *Augustus*, whose *neat* Effigies from a *Coin* of *Ursinus*, may be seen before the *late* compleat Edition of *Livy* in *English*, buried with so much State, and lamented so much by *Virgil*, at the End of the 6th Book of his *Æneis*, had a lingring Sickness from Sixteen Years of Age to Three and twenty, *Propertius* says but Twenty, of which he then died in *Tabiana*, as *Servius* on the Place, in the Time of his *Ædilship*.

Ptolomy says, That *Tabiana* was an *Island*, like to that of *Tylus* in the *Persian* Bay: This is attested also by *Stephonus* and *Marcellinus*, who calls it *Tibiana*; but *Marcellus* probably died nearer home.

What Authority maintains *Marcellus's* Death by *Musa's* Cold Water, among Authors of undoubted Credit, only *one* excepted, I am a Stranger to; or where *Tabianum* was besides, unless near the Hill *Tabiæ*, famous for the best Air for Consumptive Persons; as *Tusculanum*, *Tully's* Country Seat, from *Tusculum*; and *Formianum* from *Formiæ*.

Lipsius upon the Beginning of the Annals of *Tacitus*, from an *Italian* Poet that writ an Elegy on the Death of *Marcellus*, says, That *Claudius* *Marcellus*, Nephew to *Augustus*, died not without suspicion of Poison by *Livia* at *Baiæ*: Or rather, as the Learned *Scaliger*, whose Opinion he rejects, in *Stabiano* near *Stabiæ*, not far from *Baiæ* in *Campania*, where the Hot Baths were; and presuming on the Testimony of *Propertius* the Poet, born in *Umbriæ*, reads in the printed Copies of *Servius* his Comment upon *Virgil*, in *Baiano*, and not in *Tabiano*, as in the Comment we use. He endeavours

vours also to *reconcile* the Difference from the *Nearness* of the Places, but makes no mention of *Antonius Musa* or any Cold Water.

The *single* Author for the Death of *Marcellus* by Cold Water, I, at present, find is *Dio*, who writes of *Augustus* [*Ἀντωνίου τοῦ ὁ Μάρκου ὑποθεσθῆναι ἀνέρωρε*] That one Antony Musa preserv'd him by Cold-bathing. A little after, discoursing of *Marcellus*, he delivers, that *Marcellus* being under Cure by the same means that *Musa* cur'd *Augustus* by [*ἀπέθανε*] he died.

I shall but gently touch this tender Place in History, which *Joseph Scaliger* and *Justus Lipsius* had such a Contest about,

'Tis suppos'd even by *Dio* himself, that the Empress *Livia* was the Cause of *Marcellus's* Death by Poison (which brought on him that lingering Sicknefs of many Years Continuance, mention'd by *Servius*) because she saw him preferr'd before her own Children [*Ὅτι εἶδεν αὐτῆς προετιμίμυτο*] upon which *Lipsius* calls her the Court *Medea*.

After Poison was given, the Royal Youth never enjoy'd himself, but pin'd away 'till he was at least Twenty Years of Age; and when the Time came that he must die, it was greatly debated how he died.

Propertius, no doubt, knew the Truth of the Matter, being in so much Favour with *Augustus* and the Court, but was loth to discover for fear of *Livia*, which might have cost him his Life; and therefore the Learned *Scaliger* says, That he rather chose to flatter *Livia*, than to bring himself into Danger by telling the Truth. In that Elegy of his third Book, beginning thus, *Plausus ab Um-*
brasa,

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broso, he says of Baia, and Marcellus, as plainly
as he then could do, to fix the Death of Mar-
cellus there,

His pressus Stygiis vultum demisit in undas,
Errat & in vestro spiritus ille lacu.

This Beroaldus, though he explain'd the other Parts of the Elegy with much Truth and Learning, did not understand; when 'tis plain, Propertius means a violent Death; for Pressus there declares Force. The Distich I thus translate:

Prest down, unto the Stygian Shades he goes;
And in your Lake his wand'ring Spirit flows.

This rais'd Scaliger's Passion in his Notes upon the Place to an Admiration, how Propertius could write thus against his own Knowledge; and he cites Dio to the contrary for Marcellus's Death by Cold Water, to the Dishonour of Musa, and judges he died in Stabiano, in the Coldest Water there, call'd Dimidia, mention'd by Pliny, l. 31.

Lipsius was of Opinion, that Poison would have had the same Effect in Baia as in Stabiano, about which they could come to no Accord. At length Scaliger found in another antient Commentator upon Virgil, then in the Hands of his Friend P. Daniel, that at the Funeral of Marcellus there was an Oration, in which Augustus declar'd, That Marcellus was devoted on the Mountain Mintur.

So variously reported is the Cause of the Death of the Beloved Marcellus; and so hard a Matter it is, when Mischief is done in a Royal Family, to know who did it; Authors at that Time being unwilling to displease Augustus, not sufficiently
aware

aware of the subtle *Tricks* of his crafty *Livia* to advance the *Tyrant*, as the *Historian* deservedly calls her *Son*, *Tiberius*.

As to the *precise Time* of Six Months, *Dio* says no more than [*ἔ πολλαὶ ὕστερον*] *no long Time after*. To clear this Matter:

The *Sea-fight* at *Actium*, where *Augustus* overthrew *Mark Anthony*, *Isaac Casaubon*, and most other Learned Men, put to the Year of Rome 723, the 13th of *Augustus*: On *Augustus's* Triumph for that Victory, *Marcellus*, about 12 or 16 Years old, according to different Accounts, having a *Led Horse*, was plac'd on the Right Hand of *Augustus*, as * *Suetonius* observes, and *Tiberius* on his Left; which rais'd a Jealousy in *Livia*, and, 'tis probable, was the Cause of *Marcellus's* Death by *Poison* of a slow-working Nature, as hath been lately practis'd in France by *Brinvilliers* and her *Confederates*; after which he might live some time in a weak and *languishing* Condition, and was easily drown'd at *Baia* at 20, as *Propertius* relates, near A.U.C. 728. 18 of *Augustus*, about which Time *Augustus* might use *Cold Water*; and sometime after *Marcellus* dies, the exact Time how long after, is not there express'd.

But to set this Matter beyond further Debate: *Helvicius* placeth *Pugna Actiaca* to the 13th of *Augustus* (Sept. 2.) and *Antonius Musa Medicus Augusti* to the 20th, about which Time *Marcellus* dy'd, and pin'd away Seven or Eight Years before, according to *Servius*; born in the first Year of *Augustus*, if *Propertius* be in the right; Three

* *Tiber. in Princ. c. 6.*

Years before, if *Servius* be true; who writes, *Marcellus* liv'd to the Age of Three and twenty.

To pursue the Story of *Musa* a little farther than hath been done by others; *Dio* in his 53d Book, where he treats of these Matters more at large, makes no mention of a Statue set up in Honour of *Musa*, which probably he would have done had the Emperor commanded it; and those that have read *Suetonius*, find other Things in him that require Faith, as the Learned *Casaubon*, in his Elaborate Comment upon him, and *Justus Lipsius* upon *Tacitus*, make further appear. *Eusebius* in his Chronicle, drives the Matter to the End of *Musa*, and writes, *That he lost his Life in Sea-Water*. 'Tis thought by Shipwreck; and so * *Casaubon* understands *Eusebius*. Upon which I shall make this Remark, That the Physician's Man, in the comical † Story from the Bath, who by an accidental Fall from a narrow Bridge, which did not break his Neck, stood up to the Chin in Fresh-Water for a Cough, and recover'd; sped much better than the Master Physician to the Prince of all the World did in Salt-Water, tho' he there found a Remedy for all his Diseases.

It may be also noted, That Sea-Water having some Degree of Heat, and more Common Salt, and Mineral Nitre, than any insipid Cold Water can pretend to, may, in all probability, be a better Bath than a chilly One, no better qualified; than on the Account of its Cold. § *Galen* starts the Question, *Whether any Mineral Water drank cold can do any good?* And gives the Reason Dr.

* *Ad Suet. A. c. 59.*

† Cold Bath, p. 265.

§ *De San. Tu. l. 6. c. 9.*

Jorden took from him, for his *Dislike* of the Use of Bath-Water in Potion, *the Uncertainty of their Mixture*, and such, says he, as cannot be discovered but by *Experience*, which *Hippocrates* affirms to be *Dangerous*.

But lest I should seem unjust to drinking *Cold Water* on *Antient* Authority (whatever good Effects *Cold Bathing* may produce in other Persons) I have observ'd, That by abstaining from all *fermented* Liquors, and only drinking cold *Spring-Water* in *Splenetic* Distempers, many Persons, and above all others, a Learned **Knight* of my Acquaintance, not far distant, found great Relief, when all means *besides* prov'd ineffectual, and the hotter Baths had rais'd the *Symptoms* of the Disease almost to *Despair*.

And as Water was the *Antient* Drink, before Wine and other Liquors were invented; and rational Creatures, not so well *improv'd*, did, in some Things, do the same with *Brutes*; which drinking *Cold Water*, and in great Heats entering the *River*, did satisfy Nature in what was *requir'd*: So *Cold Bathing*, or the *Psuchrolusio*, before the *Thermæ* or *Hot Waters* were sufficiently known, did with greater Ease obtain among the *Antients*, 'till a more *rational* Account was given of the *Hot Waters*, and their *Uses* displac'd; as Persons of elder Years were at *first*, from the Example of our Blessed SAVIOUR, baptiz'd in a *River*, which afterwards gave Occasion to the *Dipping Baptism* in Persons of elder Years, and baptizing or *Dipping* of Infants, when that Controversy was *decided* among the *Primitive*

* *Sir G. N.*

Christians, and so continu'd 'till *Decency* and *Order* was the Reason of leaving *that* Antient Usage; and the Church in After-ages acting according to the *general* Canon of the Apostle [*Let all Things be done decently and in Order*] thought fit to order the *Font*, by which Sprinkling or *Affusion* of Water in Baptism at this Time more *decently* continues, though the former Custom of *Dipping* (or *Immersion*) be not prohibited. The *same* Word is us'd in the Book of Canons 1571; where *Sacer fons*, not *Pelvis*, is order'd to be kept in every Parish Church, in which it ought to stand *Clean*, for the more *orderly* and *decent* Use in Baptism; and *Immersion* is mentioned by the Name of *Dipping* in the present Offices for Baptism *Publick* and *Private*, but not as *necessary*, but *hazardous*, and therefore to be done *discreetly* and *warily*; and the Reason given in the Rubrick, *because all Children may not endure it*, which cannot be fear'd in the *safer* Way. Upon which the Reverend Dr. Comber, on the *Liturgy*, says, *That Sprinkling in Baptism is not injoin'd by the Church Establish'd, but, for Reasons I have given, permitted to be done.* And to touch a little more on *Divinity*, *De Fonte sacro*, sometimes mention'd in the *Antient* Fathers, and other Writers more *recent*, sometime before the *Fifth* Century (besides the Story of *Lucius*, which hath been too often *question'd*) may as well be understood of the *Font*, as the *River*, which contains much more *Holy-water* than *Holy well*, or any *Basin* plac'd without, or in the Church, did *before* the Reformation; as the Antient Church of *Litchfield*, under so Pious and *Learned* a Prelate, could have *better* informed such a noble Advocate and *Patron* of the *Baptists* and their Adherents, had they thought fit

fit to take Notice of so *unkind* a Reflection on the present *Usage* of the Church, under the Name of a *Friend*. Besides, Baptism being a *Sacrament*; and to be done but *once*, cannot be any way *instrumental* in the Cure of *Diseases*.

But to leave *Divine* Work to *Divines* themselves, the *Reader* may take Notice, that for the greater Security and Benefit of the *Drinkers* of the Water here, there are firm *Leads* and good *Pumps*, that convey the Water *pure* from the Springs, without any *Mixture* (which was *formerly* found) with the Water they *bathe* in, which is foul, vapid and effete; whether so with them the *Author* may judge, if he please to read what was formerly written: * *And here we drink the same Water we bathe in, as they do at the Bath.* I hope not the *same* Water, but Water of the *same* kind, drinking the *same* Water they *bathe* in being strictly forbidden by the *Physicians*, and carefully prevented by the *Government* at the *Bath*.

As to the *Grand Absurdity*, as he calls it, practis'd at the *Bath*, † *Of drinking the Water very hot from the Pump, whereby the Gas of the Mineral too much affects the Head, causeth Sweats, and is injurious to Asthmatick and all hot Constitutions;* The *Author* may consider, that the *Steam* of the *Bath* is not the *same* with the *noxious* Gas of *Van Helmont*, but being only the *Volatile* Part of the Water, which he may call *Spirituous*; or if he like that *better*, the *Vitriol* of *Mars*, resolv'd by *Heat*, and clouded with a vaporous *Sulphur*, the more penetrating and *nimble* Part of which may be so far from being *prejudicial*, that 'tis of great

* Page 138. † Pages 63, 64, &c.

use to all *Asthmatick* and *Consumptive* Persons, and in other Distempers of the *Lungs* and *Chest*, which is one Reason why the *eminent* Dr. *Radcliffe* frequents this Place. Whereupon the *antient* Physicians generally did send their Ill-breathing *Phthysical* Patients to a Hill nam'd *Tabia*, between *Surrento* and *Naples*, whose *Air* and *Milk* was commended by *Galen* *Vto* *M. M. c. 12.* and the former preferr'd before that of any other Place, being impregnated with a *sulphurous* Steam that came from the burning Mountain *Vesuvio*, as the celebrated Practitioner *Sennertus* hath observ'd in the Diseases of the *Lungs*.

I shall further add, That the Water of the *Hot Well* at *Bristol* deserves greater Commendation in that particular than others more remote: as, besides what I have formerly done on the same Subject, the late Collection of Cures, by a diligent * *Observer*, makes plainly to appear, as in many other, so in those very Diseases I lately mention'd; having not only done Right to the Hot Waters of that Place, but deservedly commended the Good Government of the City. In which Water, as the Heat comes not from Fire, but a Fermentation, the Minerals to which they owe their Virtues are rather Salt, Sulphur and Nitre, than Iron, Allum or Lime-stone; the former, whatever may be said of the latter, upon Chymical Experiments faithfully made by the Assistance of Mr. *Richard Millechamp*, then Apothecary in *Bristol*, not appearing to Satisfaction in the Contents drawn from considerable Quantities

* Mr. Underhill.

of the Water on the Place. 'Tis much to be lamented that so *sanative* a Spring had not a better *Situation*, that so the Water might *expand* itself to the Formation of a *Bath*, which being most temperate in Heat, would be of greater use in all *Tabid*, *Emaciating* and *Hectic* Diseases, than any other *Bath* in the *Nation* besides; which Defect can only be *supply'd* by long Bathing-Vessels of Wood, in which the Patient may lie at length with the *Head* above Water, and the Water *renew'd* as it begins to grow Cold. Such *Baths* as these were formerly *artificially* heated, to the Degree of *Cow-hot-milk*, the *Balneum Aquæ Dulcis* being *insipid Cold-water*; but the Heat of the *Hot Well* being *natural*, far exceeds any *Bath* can be made by *Art*.

I add, That the Objection made against taking *Bath-water* from the *Pump*, being founded on so odd a Word as *Gas*, the *Gas*, *Blas* and *Archeus* of the *same* Author are as *unaccountable* to me, as the Words of a *Conjurer* are when he calls for *Spirits*. But as to the *general* Use of the Water in *Potion*, as what I *first* intended, was well received, and did *much* Good, so the *many* ill Accidents that have happen'd since, the confus'd Resort of *scandalous* Persons, *Vagabonds* and *Cheats*, on pretence to the Water, and the *packing* away of Patients *poor* and *incurable* by Physicians in other Places, have made me more *cautious* of commending or advising that way of Remedy, and with greater Satisfaction and *Credit* depend upon the *Bath*. Not to mention that the King's *Bath Dry Pump*, design'd for the Use of *Bathers*, and others upon the Place, is now so *Wet*, as to look more like a *Brew-house* than a *Pump*, by sending away the Water in *prodigious* Quantities;

to the great *Prejudice* of the City, as well as those that stand in need of that *Bath* and the *Pump*.

And whereas the *Bath*, in former Times, discreetly us'd, did *quicken* the Circulation, promote *Nutrition*, Cure *Atrophies*, strengthen *Weaknesses*, confirm *Relaxations*, and relax *Contractions* of the *Tendons*, and all the *nervous* Tribe; the *nutritive* Juice and relax'd *Paralytic* Fibres are now so *diluted* and beyond all measure *soften'd*, with a *Deluge* of the Waters taken inwardly, that whatever *Good* it may do Persons in *statu neutro*, neither *sick* nor *well*, the good Effects were wont to be produc'd by *external* Applications of the *Water* to the Parts affected, are now *frustrate*, Cures not so *numerous*, and, if any, perform'd in much *longer* Time, since the Use of the *Bath* hath become so *much* inferior to the *drinking* of the *Water*: and the Diseases, formerly cur'd according to antient Method, *safely*, *quickly* and with *ease* to the Patient, must now expect the *Omnipotent* means that *first* attended the Propagation of the *Christian* Religion, and not a *Cure* without a *Miracle*.

Should I proceed farther to *discover* the great *Mischiefs* and *Inconveniencies* that accompany the late uncouth *apish* Practice of Physick, not only here, but in *London* and *other* Places; I might perhaps be thought to do it out of *Pique* or *Design*: whereas I do *bona fide* declare, That I write this out of no *other* regard than to the *Truth* of Observation, and the *general* Good of the Race of Mankind, for which all *Hot Waters* were at first *Created*, by the wise Maker of the *Universe*; but the *Bath* oftentimes *interfering* with drinking the *Water*, a general Good cannot be obtained till both are made and kept distinct.

To some *undecent* † Expressions elsewhere, that cast a *Livid* Aspect upon me and my *Writings*, I shall at present say no more than this, That I have fram'd a sufficient *Answer*, as my Friends well know, which I was unwilling to make *publick*, by giving further Trouble to an *ancient* Man in his way to *Heaven* and the Joys of *Eternity*. But to do the *Right* I owe, and that most deservedly, to the Memory of the *deceas'd* learned Dr. *Highmore*, the Character of *Dictis & Gestibus officiosis*, mention'd in the famous Dr. *Maplet's* elegant Epistle to Dr. *Needham* in *Therm. Britan.* p. 361. whoever it may belong to, could never suit with *him*, who was so far in his own Nature from an *over-officious* Demeanour, as he never had any Circumstances of Life as did require it, being *Wealthy, Learned* and *Grave*.

In the Preface to his excellent Book, *Disquisitio Anatomica*, this Character he gives of himself, which I knew to be his *Temper*, and is my own in part, *Non vanum & ambitiosum scribendi Cacoethes me possidet, non Vulgi acclamationes ambio nec contemptus metuo; sola mihi placet Veritas*. I have no vain Humour or *ambitious* Itch of Writing Books; I seek not the *Applause* of Men, nor fear their *Frowns*, only *Truth* is what I aim at. And tho' *Riolanus*, the *supercilious* Professor at *Paris* and Dean of the Faculty, a *proud* and profess'd Enemy to the *Fame* of all *English* Physicians, as well as to the *Renown'd* Dr. *Harvey's* Circulation now establish'd, thought fit in *Opusculis Anatomicis*, to treat Dr. *Highmore* with no greater Civility than that of a *Lunatick*,

† *Memoirs of Bath*, p. 24. &c.

haughtily asking *where the Moon was*, when he writ his *Anacephaleosis*, or Summary of the Book mention'd before, Dedicated to that excellent Person Dr. Harvey: Yet others, especially *High Germans, Dutch, Danes and Swedes*, admired him, and some under the Name of *Higmore*, the Letter *H in medio*, being never very current in *Foreign Parts*.

Jacobus de Back, a Person of good Repute in *Holland*, in his Dissertation *de Corde*, printed at *Roterdam*, calls him *A most diligent Searcher into Nature*.

Johannes Antonides vander Linden, the Learned Professor at *Leiden*, and much in favour with the most Learned *Goliw*, that *Arabic Oracle* and admir'd Linguist, in *Medicina Physiologica*, c. 9. p. 456. gives him the Character of *a most famous Man, and accurate Anatomist, Qui palmam meruit ante omnes; & M. P. c. 9. §. 6. docuit nos hoc primus Cl. Highmorus*, I learn'd this first from the famous *Higmore*. *Joannes Alcidius Munier* in *Prolusiunculis ad vasa Lymphatica Bartholini*, printed at *Genoa*, styles him, *The Lynceus, Lynx, and quick-sighted Eagle in Anatomy*. The very Learned Physician, Philosopher and Divine, Dr. *Thomas Bartholinus* (my Friend) Son of *Caspar a Dane*, sometime *Regius Professor* at *Copenhagen*, and Dean of the Faculty, who ever since he was in *ENGLAND*, and saw our Universities about the Year 1640, was, as now is the Learned *Jacobus Gronovius* at *Leiden*, very kind to the Letter'd Men of this Land, in *de Laet. Thorac.** hath these Words; *Nathaniel High-*

more, an Englishman, hath of late Years been an accurate Writer, and exceedingly well vers'd in the Dissection of Animals. Olaus Rudbeck, a Swede refers often to Highmore's Cuts, very curious, and answerable to those of the great Anatomist Vesalius; only in *Hum. Corp. disq. Anat. par. 2. Tab. 77. g. g. g. p. 39. & Tab. 111. p. 4. a. a. a. b. b. b.* the *Venæ Lactææ* upon the *Porta* from the *Pancreas* to the *Liver*, are mistaken for the *Lymphaticks*.

Fredericus Ruysch, M. D. and (now) Professor of Chirurgery and Botany at Amsterdam, the ingenious Author of *Dilucid. Valv. p. 35.* from Dr. Highmore's *Fig. 11. Tab. X. collect's* the longer Valves *Highmorum prorsus latuisse*; and in his 22d Observation refers to Highmore's *Tab. VII. Fol. 62.* Also *p. 65. Highmorus celebris ille Britannus*, Highmore that famous Englishman. The same skilful Anatomist first discover'd a new Artery, call'd *Bronchialis*, which conveys Blood from the Great Artery to the Lungs, by the means of which Circulation there is more plainly understood, than by the obscure jingling Names of *Arteria venosa*, and *Vena Arteriosa* of the ancient Physicians, which indeed are but Veins. This new Artery is evidently exhibited with the *Bronchia Pulmonum*, in a curious Copper Cut, D. V. printed at the Hague, *ex officina Hermani Gael, A. D. 1665. p. 70. Fig. IX.* I had a kind Salutation with a Present of the Doctor's Anatomical and Chirurgical Observations, made since the former, with many large Copper Cuts in Quarto, and an Account of the Curiosities contain'd in his Museum, sent to me lately from Amsterdam, where he is Physician in Ordinary to

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that Republick. On the Discovery of this new
Artery, a Friend wrote these Verses.

Pulmoni nunquam veteres tria Vasa negarunt,

Cunctis nota satis; Ruyschius arte valens

Nobile Vas profert quartum, quo fertur ad ambos

Palmones, sanguis nobilior rignus.

Which I thus made English.

Three Conduits to the Lungs the Antients
grant,

But a Fourth Artery 'till now did want;

The famous Ruysch explor'd this useful Good,

By which the Lungs obtain a nobler Blood.



Concerning Heat in the BATH.

HAVING thus discours'd of new Inventions
in Foreign Parts, whether a better Cause of
the Heat of Hot Baths than Fire hath been lately
discover'd by some nearer home, I shall submit
to the Judgment of the Candid Reader in this Pa-
ragraph, as the last Digression.

Not long after the Death of the Learned Dr.
Jorden, who gave the greatest Damp to a subter-
ranean Fire, another Person, much of his Opi-
nion, advanc'd a farther Account of the Heat of
the Water of the Bath to this Effect: I come now
to

to the Water's *Heat*, the Cause of which being variously debated (for Water, from an *internal* Principle, is not *naturally* Hot) hath exercis'd the Minds and Pens of many Men already, and may many more for the future. The *Difficulty* of the Thing was the *Reason* why most Writers of the Bath, have *either* pass'd over this important Matter, or insisted on *Causes* no way probable, if not *broach'd* Opinions of a *monstrous* Nature.

For besides a *Fire* under Ground, which was the constant Opinion of the *greatest* Part of Writers in *former* Times, but confuted by later Authors*: Some Philosophers have attributed *Heat* in the Waters of the Bath to the *Beams* of the Sun, and call'd the Waters, *The Waters of the Sun*, the Deity *Minerva*.

Some have made the *Cause* of the Heat, Wind, or a *Spirit* inclos'd and impell'd within the *Bowels* of the Earth; *others* Quick-lime: Some Limestone, and the violent Motion of the Waters; with other Causes as ridiculous as the former.

What seems to be most *rational*, is, “ That Metals and Minerals, contain'd in the Earth, have their Seminaries endow'd from above with Spirits and Faculties subservient to Generation; and meeting with convenient suitable Matter, work on it so as to corrupt the former, and reduce what is alter'd to a more exalted active Substance.

* Quod aliqui ignes subterraneos fingunt, citra rationem fit, cum sine aere libero ignis nusquam ardeat. *D. Geo. Ent. Apcl. pro Circ. S. p. 88.*

Omnis ignis duo desiderat, alimentum & ventilationem; quorum alterutro si defraudetur, extinguatur. *Id. p. 96.*

This *Operation* cannot be made without the help of *Moisture* and *Motion*; the first is a *Passive*, the second an *Active* Principle.

There must also be *Variety* of Matter, of which all Minerals do generally consist; and the Water, coming *Cold* from divers Places, brings with it many Mixtures of *different* Natures; all which, joining in the *Mineral Matrix*, generate *Heat* by *Ebullition* or *Fermentation*.

'Tis necessary also that the Water in some Places be affus'd in *greater* Quantity, in others *less*; in some *near*, in others at a *distance*; in some *direct*, in others through *crooked* and more *winding* Passages; by which the Heat *varies*, and becomes more *intense* or *remiss* in several Places, as in the *King's*, *Cross* and *Hot Baths* at *Bath*.

A good Argument of *Activity* are frequent *Bubbles* perpetually arising from the Springs of the *Bath*, occasion'd by the *Motion* of bituminous and sulphurous Matter in the Mineral Bed *beneath*, which meeting with *Air* above-ground, appear on the *Surface* of the Bath in such a *Form*, as the *Breath* usually makes by *Motion* upon *Common* Water, or the *Hand* with a Mixture of ordinary *Soap*.

All these *Requisites* to a natural Mineral *Hot Water*, not meeting in *Mines*, is the Reason why Baths are not so frequent in Places where *Metals* and *Minerals* do more abound; only great *Heats* are observ'd there, which in *Defect* of Water, the *Air* many times *improves* into a *Flame*, which hath never yet been known at the *Bath*.

This is the Substance of the *new Hypothesis* I formerly publish'd in a Treatise of the Baths of *Great Britain*; and if any love *Fire* better than a *Fermentation*, they have my Consent to remain

the Right Use and Abuses of Bathing. 315
perpetual notional Salamanders for the future,
and shall ever live for me without Disturbance in
that Opinion.

And now, Sir, having made a *Civil Enquiry*
into the *Enquiry* of Sir *John*, and consider'd all
the *Considerables* that reflect on the famous and
deservedly celebrated *Hot Waters* of *this City*,
which was the *chief* Design of Writing this *Apology*;
I think this enough to let you know, that who-
ever hath the *Latin Pen*, I have *English* sufficient
to express a former real Esteem, and acquaint
you that I continue,

S I R,

Your Faithful Friend

and Servant,

Tho. Guidott.



THE



THE
POSTSCRIPT
TO THE
READER.



HERE hath been, *kind Reader*, another Book lately publish'd by the Author on the same Subject, with *Auxiliaries* of Foreign Aid, and some Deserters from the *Bath*, who might have done a *wiser* Act than assisted an *Enemy* to the Place, whence they expect an *Annual Income* to maintain their *Ingatitude*. I have *perus'd* this, and account it much more candid, and *better* penn'd than the *former*; but the Arguments *there* us'd, besides *bare* Authority, *doubtful* Certificates, *Reports* and *Witty Stories*, carrying the Matter no *higher* than the *Enquiry* hath done, I thought fit to refer the Reader for an *Answer* to that, to the *Summary* I have made, *pag. 296.* of this *Apology*, where all
the

the Favour any *rational* Man can allow *Cold-Bathing*, with its Benefit, is express'd: which agrees with the *Hot-Bath* chiefly in *this*, that both are *natural*; but moderate *Heat* in its own Nature being generally esteem'd of greater *Use* to preserve *Life* than its *Contrary*, the *same* Degree of *Benefit* cannot be expected from the *One*, as may be found in the *Other*.

And as to the *Cures* are said to have been done by the Use of the *Cold-bath*, 'tis too well known to be the *common* Artifice of all *Quacks* and *Empiricks*, who ought to be at greater Distance from *rational* Physicians, to create a good Opinion in the Admirers of their *Medicines*; and if every *Mountebank* on a Stage, to which the learned *Author* is a Stranger, should give himself the Trouble to require a *Certificate*, true or false, from all his Patients, with *Hear-says*, *Letters* and merry *Discourses*, they would swell into a Volume of *twenty* Times the Bulk of both those Books. If *Reason* answer not *Experience* in some Proportion, the Matter is more *Empirical* than *Rational*; though *Experience* go before, *Reason* must follow; and opening and shutting the Pores having no more Relation than *Contraries* can have, the comparing of both will declare the Difference; which with great *Exactness* is already done in the *second* Letter to a competent Judge, the most worthy Dr. Fowk.

In short, the noble Doctor, in his last Discourse of *Cold-bathing*, hath sufficiently *shewn*, that he hath read much, that he is well vers'd in Authors *Antient* and *Modern*, *Popish* and *Reformed*, *Authentic* and *Legendary*, *Good* and *Bad*; among the *last* of which our best *Historians* and *Divines* generally account *Polydore Virgil*, a Corrupter
of

of our *English* History, a great *Waster* of the Church-stock at *Wells* (where he was sometime an *unhappy* Archdeacon) and Collector of *Peterpence* under the Pope, in the Time of *Henry VIII.*

The same *excellent* Person hath given a *clear* Account of the *early* Use of Cold-bathing, before convenient Places were made, and the *Therma* or * *Hot-waters* were better known, which seems to have been in *great* Measure since the Year 1400. For the *Hot* and *Cold-baths* were known and in Use before and after Christ; yet on the Decay of Learning by the Downfal of the *Roman* Empire, they for many Years lay neglected and obscure; 'till the *Arabians*, chiefly *Avicen*, the Prince of *their* Physicians, about the Year 1000, among other Parts of Medicine, reviv'd that Sort of Knowledge, which other learned Men in after Ages examin'd, illustrated and much more advanc'd, when the Use of *Hot-baths*, as † *Baccius* observes, was almost obliterated, and had been little better than a useless Cypher, or Supernumerary in the *Creation*, could Cold Water have done the same, or as much Good as the *Hot*, which was the extraordinary Gift of God to Man.

This Restoring of *Hot-baths* to their former Use was long after the Time of *Constantine*, who died in the Fourth Century, and went to *Nicomedia* in Hopes to receive Benefit in his old Age, from the *Hot-Baths* there, where he was baptiz'd.

* P. 45.

† De Therm. l. 2. c. 1.

To clear the Matter concerning the *Baptism* of this *pious* Emperor, not rightly represented by the *Author*, I find from *Greek Ecclesiastical Story* of *undoubted Credit*, that about his Age, and the Time *when* he died, there is no Agreement.

The most *positive* Author is *Socrates*, who in the last Words of his *first* Book, says thus:
 “ The Emperor *Constantine* liv’d threescore and
 “ five Years, he reign’d thirty one, and died the
 “ two and twentieth Day of *May*; *Felicianus* and
 “ *Tatianus* Consuls; the second Year of the 278
 “ *Olympiad*. ”

This Year, according to the *Compute* of *Helvicius*, falls on the Year of our Saviour’s Nativity 337; according to *Simon Grinæus* and his Continuator *Paulus Phrygio*, an old Chronologer, whose *Æra Christi* commenceth later, 338. For as the *Fasti* and *Olympiads* do *seldom* agree, so there are some few Years Difference in Dispute among the Writers of the *Reign* of this Emperor.

Concerning his *Baptism*, *Eusebius* Bishop of *Cæsarea*, who liv’d at the same Time with him, and wrote his *Life*, delivers; That coming to the Suburbs of the City *Nicomedia*, and having assembled the Bishops, he spake *thus* unto them.

Brethren,

“ The Salvation I have earnestly desir’d of
 “ God these many Years, I do now this Day
 “ expect: It is time therefore that we shou’d
 “ be seal’d and sign’d with the Badge of Im-
 “ mortality. And though I purpos’d to receive
 “ it

“ it in the River *Jordan*, in which our Saviour,
 “ for our Example, was baptiz’d ; yet God
 “ knowing what is fittest for me, hath appoint-
 “ ed that I shall receive it in this Place : there-
 “ fore let me not be delay’d. And if he, in
 “ whose Power Life and Death are, will permit
 “ me to live any longer amongst you, and to
 “ join my Prayers with the Prayers of the Con-
 “ gregation of God’s People, I will live in such
 “ a regular Manner, as may become the Servant
 “ of God”. Thus he spake, and after the Ser-
 vice of Baptism was read, they, (not the Pope
 or the *Arian*) baptiz’d him, with all the Ceremo-
 nies belonging to this *mysterious* Sacrament.

Another *Historian*, whom I have translated
 from the Original *Greek*, that there might be
 no *Mistake*, affirms, That *Constantine* finding a
Decay in himself, and willing to use the *Hot-
 baths* for some time, abode at *Nicomedia* [about
 60 Miles from *Constantinople*] in a certain *Man-
 nor* without the *Walls*, where he was baptiz’d
 in the Faith of CHRIST, in which he *greatly*
 rejoiced. After he was baptiz’d, he *prais’d* God,
 and said,

“ Now I know that I am happy, that I shall
 “ enjoy an Immortal Life and the Presence of
 “ God ; the Privation and Loss of this Happi-
 “ ness, is the greatest Misery.

He died at the Feast of *Pentecost*, which we
 now call *Whitsontide* ; and was bury’d at *Con-
 stantinople*, in the Church of the *Apostles*, which
 he built, and therein erected his own *Monument*,
 being a *Tomb* in the midst of *twelve* Pillars, in
 Honour and Memory of the *twelve* Apostles,
 which stood on each side of his Tomb, *six* on
 a side, being unwilling that any one of them
 he

he so much honour'd, should be plac'd at his Feet.

Having given this *Account* of the *Baptism* and *Death* of *Constantine* from the *best* Authority, I return to the *Author's* Performance in his *later* Discourse of *Cold-bathing*, and acknowledge, that with great *Industry*, he hath reviv'd an antient Custom, but not destroy'd a *later* Usage; the *Hot-baths* enjoying still the same *Virtues* with which they were at *first* endow'd, having many advantageous *Minerals* in *Conjunction* with *Heat*, that are not to be found in *SIMPLE* Water *Cold*; which, notwithstanding all *Endeavours*, jocular and *serious*, to support its Use, may not prejudice the *Hot*, since the great *Wit* of the noble *Galba* met with an *Allay* from a *mean* Habitation, which a *stately* City doth advance; and, as *Tully* said of the eloquent *Hortensius*, whom the *Roman Forum* call'd the *King of Causes*, *A good Orator may sometimes espouse and defend well an indifferent Cause, but never make a bad one good.*

And as it hath been lately thought reasonable in *Spirituals*, that there ought to be no halting between a *Conventicle* and a *Church*; so 'tis advisable in *Naturals*, that those that admire *Cold* Water so much, as to blow *Wind* into the *Carcass* of an antiquated Custom, forbear the *Hot*, or endure the Distinction of *cunning* Juglers, that blow *Hot* and *Cold*, *contrary* Breath, out of the same Mouth; which hath in *great* Measure undone the Practice of *Physic* here and *elsewhere*; so that what was formerly said of *Rome**, may

* Viribus suis ruit.

better agree with the noble Art of *Medicine* in so flourishing a Condition for *many* Ages past ; which though now fallen into the Hands of the *Enemies* to Learning, *Goths* and *Vandals*, *Empirics* and *Quacks*, suffers *most* from *intestine* Divisions, and its *own* Members ; as is well observ'd in the *first* Part of an *honest* Letter from the ingenious *Dr. Baynard*, *Postscript*, p. 207. who very *kindly* hath commended *Drinking* Water on the *Place*, and more than *others*, supported the *Dignity* of the Faculty.

I have not Time now to examine *Quotations*, or know how far the *Comment* exceeds the *Text*, but shall make *this* Remark upon the prudent *Roman* Emperor *Alexander Severus*, who drank *cold* Water, liv'd long, *was* in *Britain*, and so much cominended by the * *Author*, That two Emperors of the *West* had the Name of *Severus* ; *Septimius Severus*, who began 195 after Christ, and ended at *York*, 4. Feb. 210, as *Dio* ; and *Alexander Severus*, Son of *Mammaea*, caput 222. *Consul* with *Dio Cassius* 229. a very hopeful young Prince, but murder'd with his Mother, 18 Mar. 235, as *Lampridius* and *Dio*, and never was in *Britain*, which the *Author* affirms. The Letter which follows from the *Learned Divine*, collected out of *Bishop Godwin* and other *Authors*, is becoming an *Antiquary*, *Orthodox* and *Serious*.

I have written this as my *last* Kindness to the *Bath*, to which in some Measure I may apply the Words † of the unfortunate *Learned Dr. Jorden* concerning *Allom* ; The greatest Debtor I

* *Cold Bathing*, p. 201.

† *Discourse of N. B. and M. W. voce Allom.*

have, and I the greatest Benefactor to it. What spare Hours I may have for the future, I shall employ to prepare for the Publick a more bulky Work in *Latin*, being the *Annals* of this City, and the *History* of Wells, with the *Succession* of the Bishops and Deans of that Church, from the first Foundation to the present Time; which may prove of greater Advantage to the *World*, than to waste precious *Minutes* about other Things of a *meaner* Concern. Only as to Drinking the Waters at the Bath, in former Times, besides that honest Physician Mr. Jones, who writing his *Baths-Aid*, mention'd * *Drinking the Waters* above 120 Years since, and gives some Directions in order to it; Dr. Tobias Whitaker, the great Physician at Norwich, about the Time of the prodigious Parts of Sir Thomas Brown, in his *Manual Discourse* of Waters, Printed at London, 1634, debates the Use of Mineral Waters inward and outward, with a *solid* Judgment, but is of Opinion, that the † *inward* Use of Mineral Waters is more *doubtful* than the *outward*, especially being to be receiv'd into the Body; and joins Issue with Dr. Jorden as to Drinking the Water at the Bath, in the Words that follow:

“ Our Learned Countryman of the Bath, in
 “ his Discourse of Mineral Waters, although his
 “ Affection to such Springs persuades him of
 “ much good Use that may be made of them, if
 “ they were taken inwardly; yet because of
 “ his Fear [which Fear is remov'd in this Apology]
 “ of some Mixture with other Waters, which
 “ may issue into 'em, for this Cause only he

* *Lib. 4. Fol. 29.* † *P. 107.*

“ protests he dares not advise the inward Use.
 “ He farther writes, * That Bathing in Salt-water
 “ is somewhat allow’d by *Avicen*, to cure the
 “ Itch and Scabs; but *Hippocrates* in many Pla-
 “ ces protesteth against it, and so doth *Avicen*,
 “ who affirms *the Remedy more noxious than the*
 “ *Disease*. I could have been longer upon this
 “ Subject, but *Business*, *Indisposition*, and the
 “ want of an *Amanuensis*, constrain me to be
 “ silent.

Kal tāuta μὲν δὲ tāuta.

Out of the *Epistles* sent to me from *Foreign*
Parts, I shall insert *one*, being the *First* I had
 from the Learned *Jacobus Gronovius*, who did me
 the *Honour* to take the Care of Printing my *Theo-*
philus in that late neat Edition at *Leiden*. Mr.
Nicholas Lloyd he mentions was my Chamber-
 fellow in *Wadham-College, Oxford*; and the *first*
 Occasion of our Acquaintance was a Passage in
 his Elaborate, Historical, Geographical and Po-
 etical *Dictionary*, printed by *A. Churchill* and
 others, 1686. at the Word *Æsculapius*.

The Letter I publish out of *Gratitude* to *Gro-*
novius (who sent it to me on the Receipt of my
Book, De Thermis Britannicis) and Remembrance
 of our *absent* Friend, who died *too* soon for the
 Learned; rather than to any Thing else may be
 in it, relating to myself.

* P. 91.



Præstantissimo Viro

D. Thomæ Guidotio,

Jacobus Gronovius S. D.

AN tanta humanitas politam mentem tuam obsidet, ut post tot Lustra, post Arbitrum notitiæ nostræ extinctum, mei etiam meminisse pergas, idque tam benigne, ut opineris te mihi placitum, si letos studiorum tuorum Fructus offerres? Agnosco ἀνεργιστά dignam illa vetere Elegantiā tuā & Musis tam inoffenso cursu ac lepore cultis & continuatis. Vix mihi Vox ad describendum animi mei motum in tam inopinato vel Nominis tui auditu, vel Manus conspectu, quo utroque nihil potuit mihi gratius contingere. Redeo libentissime tecum in præterita, & illos serenos Oxonienses dies, te Auctore, cum maxima hilaritate revolveo. Utinam ille unus Dolor non interveniret, ac tranquillum hoc Gaudium non turbaretur Desiderio istius Doctissimi & Candidissimi nuper nostri Lloydii! Ad hanc mentionem testor Lacrymas tenere me non potuisse: adeo arde me perseverat recordatio immensæ jacturæ; & quanquam fatear exsultare potius me debere ob istius exigui temporis usum, tamen illa tam multa, quæ mihi spondebam ex pulcherrimis ejus

propositis, sic ablata & raptā per omnem vitam dolebo. Tanto magis etiam exosculor suavitatem tuam, qui renovatione hac amoris tui, & solaris & jucundiorē longe denuo reddis memoriam istam. Scio & recordor optime, inter nos interprete Lloydio & Maxagiln constitutam familiaritatem; sed illam calefacere toto medio tempore nequivi, vel propter desultoriam vitam, & annos forsan nimis multos profectioibus deditos; vel quod postquam Deus me in solido stabilivit, circumspiciens quorum benignitati fatebar me esse adstrictum, quum multa tibi accepta retulissem, nesciebam quo te, Honoratissime Amice, detulissent fata, quæ ut semper optavi, etiam nunc & diu fausta & propitia tibi ac domui tuæ, si quam tibi propriam & pignoribus firmam fundavisti ex animo precor. Æsculapius tuus nequaquam me fugit, qui utique debetor publico postquam prædem ejus se obtulit ille tibi, ille mihi tam gratus optatusque quondam Lloydius: cujus manes precor ab fallacia ut liberes, & quod certe scia plurima me aliosque doceas. Quod collata in Patriam tuam Dei munera inspicis, & operose etiam illustras, sane negotium est undiquaque favorabile, & omni laude dignum; præsertim quum tam solerter & industrie singula aggrediaris, tanto excellentius, quod in hanc partem primus te incitas, & quidem ita ut pariter videaris consummare. In quo sicut liberalitati tuæ summas ago gratias, non tam quod Librum possideam quam quod tua ope & indulgentia discere mihi licuerit quod volupe est; ita eum librum hic & ubique celebrabo, ac notum faciam nominiq; tuo admiratores conciliabo: neq; desinam posthac mea ludicra ex æquo tecum communicare, ut sic saltem quod residuum nobis est vitæ, prout in hoc corporum discidio licebit in sinu mutuo deponamus. Perge, perge, admirabilis Guidoti, elimare
etiam

etiam Bathonienses Antiquitates, & ex Thesauro tuo scientiam publicum auge & instrue: Si quid ex his terris tibi opis, aut etiam amabile potest per me evenire, persuade tibi, eam rem a me bona fide effectum iri, & pro ingenti munere habiturum. Deus præclaris tuis inceptis faveat, valetudinemq; tuam curæ habeat, quod ex animo comprecor,

Honoratissime &

Eruditissime Guidoti,

Tibi Obsequentissimus,

Jacobus Gronovius.

Lugduni ad Rhenum
die Octob. XXII.
M. DC. XCVI.

*Eum qui tibi has deferet ardentem com-
mendo; quod si feceris, ut ille intelli-
gat, nã magnopere me hoc etiam genere
devinxeris. Iterum vale.*





In ENGLISH.

S I R,

CAN so much Goodness possess your Breast, as that so many Years after the Death of the Middle-man, that brought us first acquainted, you should still continue to remember me, and so kindly too, as to oblige me with some Fruits of your Studies? I acknowledge the Purity of the *Latin* Stile and Elegance may vye with that of the Antients, in which the Muses join with so much Gaiety and Air, as render it easy and belov'd of all.

I have not Words sufficient to express the Motion of my Mind on this surprizing Accident of hearing your Name, and seeing your Hand; both which were so acceptable to me, that nothing could be more.

I most willingly reflect upon the Time that is past, and call to Remembrance, with greatest Delight, those serene Days I spent in *Oxford*, of which you were the Cause.

I wish the only Grief I ever had since, had not interven'd to disturb my Rest, I mean the Death of our most Learned Candid *Lloyd*; at the mention of whose Name, I can hardly forbear Tears; so close the sorrowful Thoughts for that great Man's Death do sit upon my Spirits. And though I confess I have more Reason to rejoice, in the Use I then made of that little Time I spent
among

among you; yet being now disappointed of the many Performances I expected from his grand Designs, I shall never cease to lament that Loss as long as I live.

So much the more Reason have I to kiss the Sweetness of your Nature; who, by renewing former Love, do comfort me, and render his Memory more pleasant unto me.

I well remember, Sir, our Friendship and Familiarity was first begun by the means of the blessed *Lloyd*; but by reason of my uncertain way of Living, and the many Travels I have had since, I could not keep it warm by such a Correspondence, as otherwise I would have done.

But when by God's Providence I came to be better settled, and casting about to whom I was oblig'd (for I acknowledge the many Favours I receiv'd from you) I could not tell, most Honour'd, how, or where you had dispos'd of yourself; to whom as I ever wish'd well, so now again most heartily pray to Almighty God, to send all Prosperity and Happiness to yourself and Family, if you have any made dear unto you by a Wife and Children.

I am not a Stranger to your History of *Æsculapius*, which you owe to the Publick, after our mutual beloved *Lloyd* had made such a faithful Promise, and engag'd it for the Press. I desire you would free his Memory from Fraud by a Publication; out of which History, I'm certain, as well as others, to learn many Things myself I know not yet.

That you spend some Time in taking notice of the Gifts of God to your Country, which with such great Pains and Learning you illustrate, is a Design very laudable, and deserves all Commenda-

mendation; and the more, because with so much Care and Industry you pursue Particulars; and that with the greater Glory, because you seem to have begun and ended the Subject of the famous Baths of *Great Britain* at one Attempt.

And as I give most humble Thanks to your Liberality, not so much that you made me Partaker of the Book you sent me, as that by your Help and Indulgence I can now learn thence what I would desire: So I shall celebrate and make known the Book to the Learned World, and procure Admirers of your Name and Learning here and elsewhere.

Neither shall I ever cease to communicate the Products of my Studies, that so what remains of our Lives, so far forth as this Distance of Bodies will permit, may rest and lodge in one another's Breast.

Proceed, go forward, admirable *Guidott*, to polish your Antiquities of the *Bath* and City; increase and furnish publick Knowledge out of the Stock and Treasure you have within: If you fancy any thing in this Country can be perform'd by me for your Good, it shall not only be faithfully effected, but esteem'd by me as the greatest Honour.

That God would add His Blessing to your Studies, and preserve your Health, is the Hearty Prayer of,

Leiden, Octob. 22.
1696.

S I R,

Your most Obedient,

James Gronovius.

T H E

THE
REGISTER
OF
BATH;
OR,

Two Hundred Observations.

CONTAINING

An Account of CURES performed, and
Benefit received, by the *Use* of the Famous
HOT-WATERS of BATH, in the
County of Somerset.

As they, for the *most* Part, came under the
Observation and *Knowledge* of THOMAS
GUIDOTT, *Physician* there.

Being great Part of his *Experience* of the
EFFECTS of the *Baths* of Bath, for
XXVII. Years last past.

The SECOND EDITION.

L O N D O N:

Printed in the Year M DCC XXIV.



TO THE
English READER.

Courteous Reader,

M*Y Latin Tract concerning the Nature and Vertues of the Baths of Bath, called Thermæ Britannicæ, because most deservedly celebrated in all the Dominions of the Monarchy of Great Britain, and Kingdom of Ireland, having found a kind Reception from the Learned, I was importuned by many Persons, to make the same speak English, which in Part is begun, but being for some Reasons deferred a little longer, I thought fit, as a Stay to the Stomach of the English Reader, to publish the most useful Part first, which is that of the Effects, whereby it doth appear what a Blessing these Waters are to this Nation in general, and many particular Persons in and relating to the same, for Recovery out of very many long, dangerous, and deplored Diseases. The Consideration of which, as it may, perhaps, set our English Baths upon even Ground of Repute with any Bath in the World, so not depretiate the just Esteem of any Cold Mineral Water well advised, and duly taken in its proper Places, though (as my Lord Bacon says somewhere concerning all Drinks we use) it cannot be*

be denied, but that warm Liquors in a moderate Degree of Heat, agree better with the Stomach, the Bowels, and all nervous Parts, than any thing cold or acid can do, as by Coffee, Tea, and Chocolate, doth every Day appear. The Bulk of the Whole fell under my own Observation, and were most what performed on my own Patients; who having been willing to own the Good they receiv'd, partly by Subscription of their respective Names, and partly by Acknowledgment and Desire of Publication, together with my faithful and impartial Relation, will render the Subject Matter beyond Exception, and be no slight Direction to others, both Physicians and Patients, what the Bath and Waters thereof may be proper for. I have not distinguished Bathers from Drinkers, in regard many Persons do both, but where any considerable Cure or Benefit hath been gained by drinking, that is distinctly related, though in course with the Bathers. If God send Life, Health, and Matter to proceed on, I shall publish every Year as many Centuries as I can make up: In the mean time, I hope, I have done enough to bespeak me a Friend, not so much to a private Interest, as a publick Good; and having done mine Endeavour to use distributive Justice to all, and offend none, I may the better promise Freedom to myself from that Unhappiness of Censure, which some Writers of Cases have before incurred.

I commit this Essay of mine, gentle Reader, to thy Perusal and Kindness; and rest,

Thy Faithful Friend,

Lond. March 2.

1694.

Thomas Guidott.



THE REGISTER

OF
BATH.

FIRST CENTURY.

I.

THE Right Honourable WILLIAM HOWARD Lord Viscount Stafford, troubled with an *Universal Palsey*, recovered Sense and Motion in all his Limbs by the Use of the King's Bath. He bathed also privately in the *Winter* in a convenient Vessel, in Water taken from the Springs of the King's Bath, 1667.

II.

Benjamin Baber, Alderman of the City of Bath, in a *Sciatica*, using the same Bath, and

and pumping to the Number of 20000 Strokes, at several Times, on the Part affected, in short time *perfectly* recovered, 1665. From his *own* Relation, 13th of February, 1679.

III.

The Right Honourable EDWARD BRABAZON, Earl of *Meath*, in the Kingdom of Ireland, and his *Countess* in the *Spleen*, and great *Weakness* of Limbs, by the *King's* and *Queen's* Bath pumping, and *drinking* the Waters, received great Benefit, 1670.

IV.

Madam Porter, of *Cornwal*, in a *Hemiplegia scorbutica*, or *Half Palsey*, of the *Right Side*, arising chiefly from the *Scurvy*, after proper preparatory Medicines, correcting the Faults of the Bowels and Blood, for a *Fortnight's* Time before she entred the *Bath*; by the Use of the *Queen's* Bath chiefly, and sometimes the *King's*, received Cure, and was restored to *perfect* Health, 22 May, 1670.

V.

John Harvey, Painter-Stainer, and Stone-cutter of *Bath*, in a *Half Palsey*, of the *Left Side*, and *Numbness* of Limbs, insomuch as the Top of one Finger of the *Left Hand* being accidentally cut off, he felt no Pain; and his Foot of the same Side so void of Sense, that creeping with a Staff, and treading with his Stocking on the Ground, he did not perceive the want of a *Slipper*; by the Use of the *Cross Bath*, in the Winter Season, recovered Sense and Motion in *all* his Limbs, 14 Nov. 1671.

VI. The

VI.

The Right Honourable *LEICESTER DEVEREUX*, Lord Viscount *Hereford*, in a Contusion by a Fall in Hunting the Fox, which deprived him of the Motion of Elevation of his *right* Arm, by the Use of the *King's* and *Queen's* Baths, and Pumping in the same, recovered that Motion, 1672. The *Scapula* Bone by Laxation slipping down, a skilful *Operator* reduc'd it at the *Bath*, which the Use of the *Bath* afterwards confirmed.

VII.

Madam *Constans Harvy*, in a *Cachexie*, or ill Habit of Body, and *inveterate* Obstructions, by the Use of the *King's* and *Cross-Baths*, and drinking the Waters, received Cure, 10 Aug. 1673. She was well at *Greenwich*, where I saw her, 11 June 1686.

VIII.

John Revet, near *Holbourn-Bridge*, *London*; sometime Brazier to his Most Serene Majesty *Charles II.* in a *Half-Palsy*, received Cure by the Use of the *King's-Bath*, 1674. which he testified by an *Inscription* on a large Copper Ring, given in Memory of the same, and may now be seen at the Entrance out of the *King's-Bath* into the *Queen's*, on the *right* Hand. The Words these: I, *John Revet*, his Majesty's Brazier, at 50 Years of Age, in this present Month of July, 1674, received Cure of a True Palsie, from Head to Foot on one side. Before which he put,

THANKS TO GOD.

IX.

William Coo of *Grandford*, in the County of *Northampton*, Esq; much troubled with the *Palsy* for a long time, by the Use of the *Cross-Bath* received Cure, and on that Account, at his proper Cost, put a Bordure of Lead about the Old Cross in the *Cross-Bath*, where he used to sit, more convenient for *Bathers* than before, with this Inscription: I, *William Coo*, of *Grandford* in the County of *Northampton*, Esq; pay my Vows to Almighty GOD, in the 63^d Year of my Age, 1675. This is now removed on the Setting up of the New Marble Cross, in the Year 1688. by JOHN Earl of MELFORT.

X.

A Merchant of *London* of 70 Years of Age, troubled with the *Gout*, and so afflicted, that for Six Weeks Time he could not go to bed, or rise, without Help, having also used *Crutches* for many Months, by the Use of the *Cross-Bath*, and rubbing well with the *Guide's* Hands, at 3 Seasons of Bathing, so far recovered, that using only a Walking Staff, which usually he went with, he now walks strongly, both Hands and Feet being *flexible*, and free from Pain. He subscribed this Benefit, 5 Aug. 1676. R. P.

XI.

Mrs. E. T. of *London*, troubled with a *Cutaneous* Distemper, and *pustulous* Eruptions over most Part of her Body, by the Use of the *Cross-Bath* chiefly, and Drinking the Waters of the same from the Pump in that Bath, received Cure, 10 July,

July, 1676. She continued well in London ten Years after, 1686.

XII.

Benjamin Adams, Servant to *Mr. William Allen* of *Smithfield, London*, in a *Sciatica*, by the Use of the *King's-Bath*, at 2 Seasons, succeeding each other, received Cure, 7 Aug. 1676.

XIII.

A Gentlewoman of good Quality in the City of *London*, having a *Sore-running-Head*, with a briny Matter breaking forth, and running between the *Suture*, called *Lambdoides*, and the Neck, by the *Cross-Bath*, and Pump of the *Hot-Bath*, in 5 Weeks Time, received Cure, 16 Aug. 1676.

XIV.

Sir Alexander Cunningham, of *Corshell*, in the Shire of *Aire*, in the ancient Kingdom of *Scotland*, Knight and Baronet, in a *Palsy Universal* much afflicting his Limbs, in 5 Weeks Use of the *King's-Bath* received Cure. His Hands and Feet, in a Manner stupid and senseless, were restored to their perfect Use, 20 Aug. 1676.

XV.

Matthew Bennet, of *Clifton* in the County of *Warwick*, Shoemaker, in an *Hemiplegia*, or *Half-Palsy*, of the Right Side, with many Cramps, and frequent Convulsive Motions of the Muscles of the Mouth, Arms, and other Parts, especially of the Fingers of the left Hand, after 12 Days Bathing, at one Season,

in the *Hot* (or *Long*) Bath, and 3 Weeks at another, received Cure, 23 May, 1677.

Note,

That these *Convulsions* were from *Emptiness*, by Reason of Weakness and Defect of the Animal Spirits, and those we call *Symptomatic*, which, on the Cure of the *Palsy*, vanished; whereas the convulsive Motions called *Essential*, or depending on no other Diseases, by the Use of the *Hotter Waters*, and the *Hot-Bath* particularly, are usually provoked.

XVI.

Mr. Robert Forder, of Easton near Winchester, in the County of Southampton, in a *Sciatica*, by the Use of the *King's* and *Queen's Bath*, at 2 Seasons following, received Cure, 8 June 1677.

XVII.

Margaret Fisher, of Nebinshea in the County of Cork, in the Kingdom of Ireland, 12 Years of Age, troubled with a *Palsy* in both Legs, and Contraction of the *left Foot*, by the Use of the *Cross-Bath*, in 8 Weeks Time, received Cure, 15 Aug. 1677.

XVIII.

John Robertson, of the Nooke in the Parish of Cletar, in the County of Cumberland, came pauper to Bath, troubled one Year with a *Palsy Universal*, which had deprived him of the Use both of *Hand* and *Foot*, and brought him to that Degree of Weakness, that he could not turn in his Bed without Help; by the Use of the *Hot* or *Long Bath*, every Day for three Months, and the *King's* one, received perfect Cure, 11 Sept. 1677. He met me afterwards, in the Year 1679, at London,

London, (where I found him well, and walking the Streets) and gave Thanks in the House of my honoured Friend Dr. *Nicholas Carter*, late Fellow of the Royal College of Physicians, London, to whom he was willing to shew himself.

XIX.

A young Gentleman of great Hopes, by Name Mr. *Richard St. Leger*, commonly called *Sellenger*, Son to the Noble Collonel *Sellenger*, of *Howard's-Hill* in the County of *Cork*, in the Kingdom of *Ireland*, 14 Years of Age, having had a *Palsy* of both Legs, which made him not able to move himself for 12 Months Time; in 3 Weeks, using the *King's Bath*, and sometimes the *Queen's*, received Cure on the Place. At his coming to the Bath, the Motion of his Lower Limbs was utterly lost, and the Two first Joints of the Fingers of both Hands were *Senseless*. He continued the Bath after Recovery, and at Ten Weeks End, went home well, 18 Sept. 1677.

XX.

Mr. *Thomas Brookes*, Minister of the Word of GOD in London, 60 Years of Age, having his Head and Original of the Nerves ill affected, and 16 Years a gravative Pain in the Back and Kidneys, came to Bath 1679, where, Preparatories premised, he drank the Waters from the Dry-Pump at the *King's Bath*, in a due Method and Order directed by me, and voided a great Quantity of a very fine Powder, which subsided in the Bottom of the Urinal, which the Urine evaporated *ad siccitatem*, made Eight Pills as big as Pistol Bullets, of the Colour and Consistence of Stone, and at his return home, evacuated as

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much

much more of that fine Powder resembling Flower, as would make 44 Pills more, without *Mixture* of any thing to make 'em up. All the Matter together, voided in no long Time, was enough to make a *Ball* of Stone of Six Ounces Weight; which coming away, the heavy Pain in the *Kidneys* and *Back* afterward ceased; but the Patient having many Diseases besides, after a Year's Time, or thereabouts, departed this Life.

'Tis here to be *noted*, That the small Stones were of equal Hardness with *Marble*, and being dapped on the Ground would rebound into the Hand, like those the *Boys* use to play with, and call *Marbles*. That this stony Matter was bred in the Body sticking to the Passages thereof, and not communicated from the Water, as *some imagine*, seems evident from this; that the *Stony* Matter sent out by Urine, the old gravative Pain immediately ceased, which would rather have been *increased*, had the Water made a greater Supply. I had not observed the like in any Patient before; of this Matter I have discoursed purposely to free the *Bath-Water* from this Surmise in the 12th Chapter of my Book of the *British Baths*, and in the 15th Chapter Number 54, something like was afterwards taken Notice of, as in its proper Place shall hereafter appear. The 10th of *June*, 1687, I saw these stone Pills or *globular* Concretions not at all relented, as *hard* as ever, *seven* Years after they had been voided in Powder.

XXI.

Major Thomas Hawley, of the Tower of London had the *Patella* Bone of his left Knee thrice injured

injured by as many different Accidents, which occasioned so much Weakness that he went by Crutches, and could have no Remedy by any Advice either at home or in *foreign* Parts, for the Space of 5 Years ; used the *Cross-Bath*, and pumped only 7 times, and perfectly recovered, 1680. See N. LXI. Cent. 2.

XXII.

Mrs. *Mary Coxe*, of *Stanton-Drew* in the County of *Somerset*, troubled two Years with Fits of the *Mother*, drank the Waters of the *King's Bath* 14 Days in the *Spring* Season, and as many in the *Fall* immediately following, and received Cure 1681.

XXIII.

Anno Domini 1681, *Jacob Hall*, a common Soldier in *Ireland*, came to *Bath* with great Tremblings over all his Body, so violent, that coming near the *Walls* of the City, he was like to have fallen through the *Ope* of the same, to the great Danger of Life from that *Precipice*, from which he was freed by some that then accidentally stood by ; the *Contractions* so involuntary that they could not be hindred by himself. With these wonderful Shakings he had been afflicted 18 Years in *Ireland*, and in the Year aforesaid came to *Bath* for Cure, where using the *Long-Bath*, commonly called the *Hot-Bath* six Weeks, in the first Month he needed not his Staff ; the Year following using the same *Bath* for foul Eruptions in the Skin, in the Space of one Month received Cure of that Distemper, but had his Shakings not much abated ; by a longer Use of the *Bath*,

Strength coming to the *Nerves*, the Trembling afterwards went away, and in the Year 1683, came well to the *Bath*, and then made *publick* Acknowledgment of Cure.

XXIV.

Peter Bonamy, Sub-Dean of *Guernsey*, 3 Years troubled with the *Cholick*, on a Translation of the morbid Matter to the *Limbs*, became *paralitic*. There was also added a *scorbutic* taint, by which the Mass of Blood was defiled, and the *Animal* Spirits became languid and weak, the *Skin* infested with *Spots* and *pustulous* Eruptions, the *Fingers* contracted, *Feet* staggering, and the internal muscular *Flesh* of the *right Thumb* very much sunk, with *Paleness* in his Countenance, and *Leanness* over all the Body. The first Season of Bathing in the *Temperate Baths* gave him considerable Advantage in Health, in a *Month's* Time; the *second* Season more; and after *four Years* Absence, coming to *Bath* again the third Time, he returned with an *Athletic* Habit of Body, *fleshy* and *brawny* Limbs, only the Extremities of his *Hands* and *Feet*, especially the Back of the Foot, weak, otherwise sound, his *Bowels*, as far as by Touch and Conjecture could appear, no way ill-affected, and, the Weakness before excepted, every where strong and sound. He used the *King* and *Queen's-Bath* chiefly, and sometimes the *Cross-Bath*, and drank the Water from the *King's-Bath* Dry-Pump. He went away in *July* 1681.

XXV.

Mr. James How, of *London*, about 40 Years of Age, troubled with the *Spleen*, and consequently

quently an ill Disposition of the *Stomach*, and *Guts*, occasioning a bad Retention of Food, and faulty *Chyle*, whence a Want of Appetite, an Atrophy, and thin Habit of Body, with great *Impair* of Strength did proceed. There was also an undue *Fermentation* of the Juices issuing from the *Sweetbread* and *Bladder* of *Gall*, and sometimes so great a Working of contrary Matter, that *sharp* and *flatulent* Humours, making their Way upwards and downwards, gave Torments to the Bowels, and created in the *Stomach* a *Nauseousness*, *Vomiting*, and great *Distension* from Wind.

After many Remedies from *divers* Physicians, in the Month of *June* 1681. he came to *Bath*, where the *Bath* not so well agreeing with him, I advised him to drink the Water, upon which at *first*, by reason of the stubborn rebellious Nature of the Humours, he grew much worse : But in some time after, taking the Water in *lesser* Quantities, longer Distances, and *fasting* thereupon, the *Vomiting* and *Reaching* went off, the *Bowels* became strong, and a good Habit of Body appeared, so that now enjoying a very good *Appetite* he can eat two or three *times* in a Day, digest well, distribute good *Chyle*, and perform all the Functions and Offices of Nature to *best* Advantage. The same Year in *November*, having eaten in *London* somewhat not agreeing with his *Stomach*, the *Vomiting* returned ; but Medicines appropriate to the *Stomach* being seasonably applied, by the Advice of Dr. George How his Nephew, Fellow of the Royal College of Physicians *London*, the *Vomiting* ceased, so that at this time he enjoys Health, and is very well, 23d *Nov.* 81. Towards the latter End he used the
Cross-

Cross-Bath, and drank the Water of the King's, *Cross*, and *Hot-Bath* for near 3 Months, and confess'd he found *more* Benefit in the *last* Month than in the *first*, as in the 12th Chapter of my *Latin Tract* of the *Baths* of *Great Britain* is more fully discoursed.

XXVI.

Mrs. K. C. of *London*, having been long vexed with a *monstrous* Drought, insomuch as by her own Relation, her *Tongue* did (as it were) cleave to the Roof of her Mouth, having us'd the best Advice, and most effectual Remedies prescribed by Dr. Fisher, and others in *London*, to no Purpose, upon Drinking the Water of the *Cross-Bath* from the *lesser* Pump there, to the Quantity of 5 Pints only, at most, for as many Weeks, received Cure of that troublesome Disease, and being 'till then unknown to me, made voluntary Relation of the same, 20 Mar. 1684. in *London*, and desired this Remembrance.

XXVII.

The Right Noble Lord, ALEXANDER Earl of EGLINTOWN, in the Shire of *Aire*, in the Bailiwick of *Cunningham*, &c. Lord Montgomery of *Scotland*, upon hunting the Fox, falling unawares from his Horse, and Bruising the Muscles and Tendons of both Hands, and especially those of the *right* Arm, so that the Motion of that Arm became very much injured, having also received Hurt on the Forepart of the Head, *right* Shoulder, and Elbow of the same Side, the Tendons of the Fingers becoming so stiff as not to move inward, the Fingers also numbed, and almost senseless, Bathing 3 Weeks in the *Cross-Bath*, and Pumping 700 on the Fingers and Wrist

Wrist for *several* Days together, receiving also some *Hundreds* on the Head, in the dry Pump at the *Hot Bath*, recovered the former Motion of the Muscles and animal Spirits, 4 Aug. 1682. About the End of Aug. 1684, the Noble Earl confirmed this Cure, and declared it publickly, making Use again of the *Bath* for his Head. Of late waiting on the most Serene Majesty of *Charles the Second* at *Winchester*, in Hawking-time, and too much intent on the Sport, fell again, but using the *Queen* and *King's Bath*, with the *wet* and *dry* Pumps for eight Days, he returned with great Hopes of doing well the last of *September*, 1684 ; and now so continues, being at this time well in *London*, this Fifth of *Febr.* 1694.

XXVIII.

Emanuel Weston, of *Elsemore* in the County of *Salop*, 15 Years of Age, having had a *Scurf-head* with many Scales, for the Space of 5 Years, using the *Lepers Bath* 20 times by *bathing* and *washing* the Head only, without any other Remedy, received Cure, 14 June 1682.

XXIX.

Another Person unknown, by the Use of the *King's Bath*, and Application of the *Mud*, was cured of the same Distemper, the same Year.

XXX.

A Third Person in the like Disease was cured the same Year by the same Bath and Mud, 1682.

XXXI.

Margaret Garey, of the Parish of *Aford* in the County of *Aberdeen* in the Kingdom of *Scotland*,

land, troubled with *Lamenefs*, and running Ulcers in *both* Knees and *left* Shoulder 3 Years, by the Use of the *Hot* and *Lepers Bath*, received Cure, having discharged her *Crutches*, she walked stoutly, and shewed the Parts aforesaid covered with *Skin* and *Flesh*, as before her Complaints, 17 August 1682.

XXXII.

Mary Eliot, 14 Years of Age, Daughter of John Eliot Merchant Taylor of London, having many and foul Eruptions in the Skin, with *rosie* Spots at first, afterwards white Scales resembling an *Elephantiasy* from the Time of her Birth, using the *King* and *Queen's Bath* fourteen Days, received Cure 1682; the Disease appearing again the *Spring* and *Fall* immediately following; the young Woman now in the *Spring* time, without other Help, shewed a clear white Skin, and altogether sound from her former Distemper, in her Father's House, 6 May 1686.

Note,

That the Famous Dr. Willis in his Practice of Physic, Sect. 3. c. 7. in this Disease condemns the Use of *Sulphurous Baths*, but perhaps his not so well distinguishing this Distemper from an *Impetigo*, *Ringworm*, or *Tetter*, might occasion that Censure; and the Use of the *Bath* but one Season, when two, three or more may be necessary, confirmed this Opinion, the second or third Season amending what was not rectified by the first.

XXXIII.

Mr. John Cosens, of Hampshire, fifty Years of Age, sometime Gunsmith to his Majesty CHARLES II. against Norfolk-street in the Strand

Strand, of an *Athletic* Habit of Body, *Sanguine* and somewhat *Plethoric*, being suddenly seized with a *Numbness*, and in great Part want of Motion of all his Limbs, but especially of the *right* Arm, having never used *much* Physick, and willing to take but one purging Potion, in three or four *Times* using the *King* and *Queen's* Bath, fell into a *total* Loss of Motion of Hand and Foot, which for the Space of *one* or *two* Days so afflicted him, that he could no way move himself, but had no Want of Sense; continuing the Use of the *same* Baths, especially the *King's*, and using a corroborating *Lotion* when out of the *Bath* in his Bed, *recovered* his former Motion, and returned well, 12 Sept. 1682. He continues now well in *London* this 22 February 1694.

XXXIV.

To the *former* Cure, though somewhat before that, I shall add *another* like it. Some *Devonshire* Men of the better Rank, about the Year 1676, came to *Bath*, partly out of *Curiosity* to see the *Baths*, and partly to accompany one of the Number that came for *Cure* of his Lameness; after a *Week* or *Fortnight's* Use of the *Bath* the lame Man in good Measure *recovered*, but one of the sound, having a *full* Body, and being in the Nature of a *Guide* to the lame Man, staying in the *Bath* longer than usual, fell *lame*. Being called to the sound Man that was suddenly taken lame, I acquainted him with the Cause, and giving him such Purging and Strengthening Medicines as could be used in *Bed*, he was brought so forward, as that he might *safely* use the *Bath* again, and in Ten times Bathing in the

the *same Bath*, recovered that Motion which for a time was wholly lost ; so that like the so-much-fam'd Achilles his Spear, That made him sound, which gave the Wound.

XXXV.

John Pyke of Exeter, troubled with a Pain in his Heels 7 Years, could not stand without much Pain, but sit and lie without Pain ; by four Times using the Hot Bath, and standing long on the Springs, received Cure, 14 October 1682.

XXXVI.

Mrs. Anne Lane of Banbury, in the County of Oxon, Daughter to Josiah Lane, Doctor in Physick, and practising there, lame of the right side, and using two Crutches, came to Bath for Relief. The first Season of using, the Cross Bath gave so much Benefit as to need only one Crutch. The next Year, and two Years following, making use of the King's Bath, walked without Crutch, by the Help of a Staff, 14 June, 1684. I saw her at Bath needing no Staff, 28 June 1686.

XXXVII.

Francis Laughton, of the Parish of St. Mark in Nottingham, an ingenious Youth, came to Bath 5 of May 1684, lame on the right side, and with two Staves instead of Crutches ; he had also a Tumour from Toe to Groin 18 Months before, two running Ulcers, one in the Leg, another in the Thigh ; on the Use of the Lepers Bath two Months, the Tumour fell, the Ulcers dried up, and all other Complaints ceased, only some Crookedness remained on the lame side, 6 June 1684.

XXXVIII.

XXXVIII.

An eminent *Lawyer*, against the Advice of some *eminent Physicians* in *London*, came to *Bath* with great Hazard of Life in the Journey, miserably afflicted with Swellings in the Feet, a *Dropsy*, and ill Habit of Body ; using the *Cross Bath* 3 or 4 Weeks, to the *Admiration* of himself and all Beholders, in great measure recovered. In *July* 1684, before he left the *Bath*, he declared publickly he was *cured*.

XXXIX.

Mr. *Charles Child*, Apothecary in *Bath*, having *salt* and *acid Humours* defluxing with *much Pain* on the *Muscles* and *Tendons* of the *Leg*, and *Back* of the *Foot*, in the Nature of a *Rheumatism*, which made him lame ; by the Use of the *King's Bath* 10 or 12 *times*, received *Remedy*, and walked as a sound Man, 30 *September* 1684. Pain and Weakness *sometimes* return, but are always taken off by the Use of the *King's Bath*.

XL.

Edward Shephard, Joyner, of *Bath*, troubled from his *Childhood* with a *Palsy* in the *Tongue*, that he could neither speak *plain* nor swallow well, swimming in the *Bath*, and diving for *Farthings*, as Boys use to do, applying his Mouth to a *Cock* then continually running, and taking the Water to the *Root* of the *Tongue* for a long Time, at length recovered the Use of his Voice, and *Strength* of the *Muscles* of the *Tongue* subservient to the same ; with a strong and
audible

audible Voice he related the same 26 September 1684.

XLI.

Mr. *William Perkins* of *London*, in the same Disease, much older than the former, using the *King's Bath*, and gargling with the *Water* of the same, received *Benefit* 20 *October* 1684. Two Years after he spake much plainer, and acknowledged the *Benefit* received from the *Bath*, 8 of *March* 1686.

XLII.

The Honourable Sir *Robert Holmes* Knight, and Governour of the *Isle of Wight*, in old Aches and Bruises received at Sea, found nothing more beneficial than the Use of the *Bath*, which he generally made Use of every Year, and testified by three brass Rings given to the *Hot Bath*, 1683. He used the *Bath* for the *Gout* in his right Hand 20 *September* 1688.

XLIII.

Mrs. *Elizabeth Forden*, Wife to *John Forden* of *Stifford* in the County of *Essex*, Esq; came to *Bath* 1684, and using the *Queen's Bath* three Weeks, received Cure of her right Arm, which had been long weak, and deprived of Motion. Related by her Husband 5 *May* 1686.

XLIV.

The Noble Lady S—— in the *Rheumatism* and *Gout*, received *Benefit* by the *Cross Bath* 1685.

XLV.

XLV.

Colonel Oliver Nichlis having received great Benefit by the King's Bath in the Palsey, was confirmed in the same by drinking the Waters Twenty-one Days in October 1685. He drank the Waters again 1686.

XLVI.

Joan Lewther of Bristol, Thirty-eight Years of Age, lame on the Right Side after Lying in the beginning of May 1685, 17 July following came to Bath, and using the King and Queen's Bath every Day for Six Weeks, had 1200 Pumps on the Side affected: And whereas, at her coming to Bath, she could not move at all without Help, she hung up her Crutches, and walked without a Staff, returning well Home, 28 August 1685.

XLVII.

A Gentlewoman of Wells, Thirty-two Years of Age, and Twelve Years marry'd, but not with Child, taken suddenly with the Palsey of the Left Side, and for Ten Months before using all Kind of Remedies, at last came to the Bath, Fifteen Miles distant, 1664; where, after the usual Preparations, and the Use of some internal Remedies, the first Season she spent about Six Weeks in the Use of the Bath, desisting then by reason of the Winter approaching; but the Benefit received at the End of the Year last past, gave Encouragement to her being early there the next Spring; where bathing all that Season, and the Summer Season following, she not only recovered the Use of her Arm, Hand, Tongue, and, in good Measure, the Leg; but returning to her

B b

Husband,

Husband, not many *Weeks* after, she *conceived*, and in the Space of *Eighteen Months* was brought to Bed and miscarry'd of *Five Children*, the *Palsey* never after returning again. Dr. *Peirce* of *Bath* hath testify'd this in *Transact. Philosoph. N. 169*, who saw the Party above *Twenty Years* after her using the *Bath* free from the *Palsey*, with a numerous *Issue*, 1685.

XLVIII.

E. G. Daughter of *R. G.* of *Bath*, Musician, having been from her *Birth* troubled with a *scurfy and scaly Head*, like an *Elephantiasy* or *Leprosy*, being also much afflicted with a *Fever* and *Pains* in the *Bowels*; from which she was freed almost as soon as born, by my Advice, as the *Parents* did acknowledge: By the Use of the *King's Bath*, and Application of the *Mud* of the same, and some proper *external Remedies*, had a sound *Head* and *thick Hair*, as if she never had been troubled with the former Disease. This I saw 5 *November* 1685.

XLIX.

Mr. *Arthur Sherstone*, of *Bromham* in the County of *Wilts*, now at the *Devizes*, near *Fifty Years* of Age, after a short Journey, was taken with a *Rheumatism*, which, after violent *Pains* universal, seized on particular Parts, viz. *Hand*, *Knee*, and *Foot*, in the Nature of the *Gout*. He also lost the Motion of his *lower Limbs*, so that he was carried by *Thomas Broad*, then his Servant, from the Bed to the Fire-side. Bleeding *once* or *twice* at the Arm in larger Quantity than usual, and taking Medicines *inwardly*, and using Applications *external* in a
due

due and regular Manner, without the Bath, the Inflammations and Tumours in the Legs and Feet (as in *Hydropical* Persons) in great measure went off, the Legs and Feet regaining their proper Motion. But the Running Pains continuing, and the Humours remaining settling on the Nerves, Muscles, and Tendons of the Right and Left Arm, so as to take away by Turns the Use of both, I committed the Patient, very strong in his lower Limbs, to the moderate Use of the temperate *Queen's Bath* in the Winter Season, by the Use of which his Arms received Motion, as before, and the Pains first ceased, then discharged: The Patient grew well 4 December 1685. He was well at Bath of that Disease 7 September 1688.

L.

Mr. George Kelly of *Russel-street*, *Covent-Garden*, Barber, 32 Years of Age, having been long troubled and almost worn out by extream tormenting Pains in his Stomach and Guts, with an ill-affected Habit of the Stomach; he had moreover a *Hætic Fever*, a *Quotidian*, *Intermittent*, and entred into a *Consumption*. In this Condition he drank the Waters of the King's Bath and dry Pump there Fourteen Days, from Three Pints to Eight, and at a Fortnight's End perceived considerable Benefit, and continuing drinking a Fortnight longer, found greater Benefit every Day, and in a Month's time recovered a perfect State of Health, which he now enjoys. He bathed toward the End of the Time Four Times in the Hot or Long Bath at Night, after the Waters had freely passed the Day before. He gave this Testimony, being under my

B b 2

Cure,

Cure, 24 July 1686; and subscribed George Kelly.

LI.

Mr. Henry Owen, at the Sign of the *Angel and Crown* in *Threadneedle street*, London, troubled with an ill *Digestion*, *Wind*, *Obstruction of Urine*, and tormenting griping Pains of the *Bowels*, came to Bath the *second Time* (the *first* proving ineffectual) 1686, where he continued *Six Weeks*, and drank only *Three Pints* of the Water for a *Week* at the *King's Bath*, and bathing *Fifteen Days* in the *Cross Bath*, drank the Waters of *that Bath* every Day *Three Pints* during that Time, and received *Cure* on the Place, which he found by Degrees. After leaving the *Bath*, he voided a great Quantity of *Sabulous* and *Turbid Matter*, for *Three Months* Time, in his *Urine*; and now, from a *thin, consumptive*, and *deplored Habit* of Body, he is become *fleshy*, of a good Countenance and Concoction, and laudable healthy Temper. This Account I had from his own Mouth 8 February 1686, and now continues *Master* of the same House, in good Health, 6 February 1694.

LII.

Mr. Moses Levermore Chyrurgeon at *Nevis*, afflicted with the *Colic*, or *Belly-ake*, which afterwards turned to the *Palsey*; by the Use of the *King's* and *Cross Bath*, but especially the *Cross*, received *Cure* 3 September 1686. I saw him well in London 1688, 20 of June.

LIII.

Elias Pomeroy in the County of *Devon*, Esq; having the same Disease, and using the *King's Bath*,

Bath little more than *One Month*, found *great Benefit*: He had also many times *Six Hundred Pumps* from the *Dry Pump* on the weak Hand, 4 *September* 1686. In both these Persons the Muscle at the Root of the *Right Thumb* sunk very much, as observed in *Peter Bonamy*, Sub Dean of *Guernsey*, N^o 28.

LIV.

Mr. *John Trevor* having received a Blow on the *Fore-Part* of the *Head*, *Os Petrosum*, and *Temporal Muscle*, which much affected, and, as it were, *shook* the *Brain*, not without imminent *Danger* of *Life*, and *present Injury* both of *Memory* and *Health*, came to *Bath* the beginning of *August* 1686. After a *Month's Continuance* there, and *Use* of the *Cross Bath*, and *Pump* belonging to that *Bath*, on the *Head* and *Nape* of the *Neck*, he found *great Benefit*, and acknowledged himself to be in a *fair way* of *Recovery*, 3 *September* 1686. I saw him much better at *Rocheſter* 26 *April* 1688, which at that *Time* he imputed to the *Bath*.

LV.

Mr. *John Worley Vintner*, at the *Bull Head Tavern* in *Clare-Market*, troubled with the *Scurvy*, and ill *Disposition* of *Blood*, whence *Eruptions* in the *Skin*, and hard *Bumps* in the same, like the stinging of *Nettles*, which gave him no small *Trouble*; drank the *Waters* at the *King's Bath* *Three Weeks*, commonly *Seven Pints*, and at most *Nine*; after *Seven Times* bathing in the *King's Bath* was *freed* of that *Distemper*. He gave *Testimony* 4 *September* 1686.

LVI.

Mr. *Nicholas Tirvannion* of London, a *Portugal* Merchant, a Man of Note and *Probiety*, in an *elderly* Age, being troubled with a *Sciatica* or *Hip-Gout*, which had much tormented him four *Months*, came to *Bath* for Cure 19 *August* 1686; and using the *King's Bath* only *Three Weeks*, with 3000 Pumps on the Part affected, went away well, and so remained free from Pain and Impediment in Motion 17 *January* 1686. where I had this from his own Mouth at his House in *London*, and went very well into *Portugal* 1688.

LVII.

Mr. *John Pargiter* Merchant of London, trading the same Way, having *old Aches*, with too *hot* and *sharp* a Disposition of the Blood, drank the Waters, and sometimes bathed *Two Months*, and found *great Benefit*, 10 *August* 1686. He used the *Bath*, and drank the Waters 1690 and 1693, and was cured.

LVIII.

William Day of *Deptford* in the County of *Kent*, Shipwright, receiving a Fall in a Ship, and lying hard in the same, was much afflicted with a *Sciatica*, which held him *one Year*, notwithstanding all the Help he could meet with in that Time, came to *Bath* 1674, using *Crutches*, without which he could not move. After a *Fortnight's* bathing in the *King's* and *Queen's Bath*, and pumping, not exceeding 500 at *one* time, began to go without his *Crutches*; and a few *Weeks* after hung up his *Crutches* in Triumph
over

over the Disease. I heard the honest Man this Day thankfully acknowledge at London his Cure by the Bath, and saw him strong and stoutly walking Twelve Years after, 9 May 1687. Mr. Charles Gery Apothecary in Fenchurch Street, London, then present.

LIX.

Charles Willoughby, Doctor in Physick, and famous Practitioner in Dublin, troubled with the Gout, by the Use of the Queen's Bath received Benefit. The Fit that usually came at a certain Time, the Bath kept off a Month longer, and much promoting Perspiration, gave great Hopes of shorter and milder Returns. He gave Testimony 7 October 1687, at Bath.

LX.

John W. of London having an Universal Palsy after a Rheumatism, and too much bleeding, so that for a long Time he used Crutches, by the Use of the King and Queen's Bath 1680, and some Years following, received Cure; and tho' very well, in a grateful Acknowledgment of his Cure, frequented the Bath. Related at London 2 December 1687. I saw him well at the Bath 10 August 1688.

LXI.

Cornelius Dyer of Hedington in the County of Wilts, seventeen Years of Age, having his Ham contracted Five Years, and tired with Advice of many Physicians, came to Bath 1664; and using the King and Queen's Bath Six Times, had the contracted Ham relaxed and strengthened, and in Fifteen Days perfectly recovered, and so con-

tinu'd at *this* Time of giving Testimony, 25 June 1687, at London, then Forty Years of Age.

LXII.

A Gentlewoman spitting much Blood, after the unsuccessful Use of divers Means for Cure, came to *Bath* with hazard of Life, and drinking the Waters cold, and never using the *Bath*, received Cure. She gave Testimony at *Bath* in July 1688.

LXIII.

William Headach of *Gillingham* in the County of *Dorset*, Shoemaker, Twenty two Years of Age, lame in his lower Limbs, came to *Bath* 5 May 1687. The Parts affected wanted Sense and Motion, Hams contracted, and Legs so vexed with Cramps, that being contracted, they stood crooked, till by main Strength they were stretched out again. After Three Weeks using the King's Bath, and once the Queen's, went away without any sensible Benefit; but after Eight Weeks Time at Home, he perceived Strength to come on by Degrees, and about Michaelmas fell to his Trade of making Shoes, and *this* Year came Twenty Miles on Foot, on no other Account than to see the *Bath*, had done him so much good, and is now in perfect Sense and Motion of all his Limbs, which he testified 23 of June 1688, giving Glory to GOD, and Honour to the *Bath*, by hanging up his Crutches near the Throne of King *Bladud*, over the parting of the King's from the Queen's Bath.

LXIV.

LXIV.

Hugh Ivy Master of Arts, and *Rector* of *Foscot* near *Bath*, in the County of *Somerset*, in too great *Bulk* of Body, and *corpulent* Habit, drank the Waters of the Dry-Pump, King's Bath, and acknowledged *Benefit* the latter End of *August* 1688.

LXV.

Joan Binmore of *Exeter*, for *Benefit* received in the *Rheumatism*, which had superinduced both *Palsey* and *Dropsy*, by drinking the Waters, and the Use of the *Mud* of the *King's Bath*, gave *Thanks* publickly in the Church of *St. Peter* and *Paul* at *Bath*, 20 *August* 1688.

LXVI.

Another Woman, a Stranger, troubled with the *Palsey*, and lodging in the House of *Thomas Parker* Chairman at *Bath*, at the same Time acknowledged *Benefit*.

LXVII.

A *Gentlewoman* of Quality of *London*, after Tryal of many Physicians there, continuing grievously troubled Night and Day with the *Whites*, when she came to *Bath* entered the *Cross Bath*, by my Advice, 27 *July* 1688, and within the Space of one Month, bathing gently in the *Bath* aforesaid, and making no Use of Medicines she brought with her, after Three Times bathing, from the Time she came, to the 24 of *August*, I write this Account, heard nothing of her Disease, and declared she was free from it 23 *August* 1688, and so continues 9 *February* 1694.

1694. In this noble Person, the *Womb*, and Parts about it being weakned by *hard Labour*, were strenghtned by the *Bath*, she also *drunk* the Waters moderately.

LXVIII.

Mrs. *Elizabeth Booth*, in Memory of her *Cure* of Lameness received by the *Cross Bath*, hung up her *Staff* against the new *Marble Cross*, erected by *JOHN Earl of Melfort*, in the Middle of that Bath, 3 September 1688.

LXIX.

Mrs. *Noble* returned lame to *London* after long Use of the *King's Bath*, in a very *disconsolate* Condition, but in short time after writ she found great *Benefit* in *August* 1688.

LXX.

Another lame Woman of *Herefordshire*, by the Use of the *King's Bath* one Season, received *Cure* on the Place in the same Year and Month.

LXXI.

Mr. *Collins Woolrich* Apothecary in *Salop*, long troubled with frequent *Vomitings*, a weak *Stomach*, ill *Concoction*, want of *Appetite*, and slippery *Bowels*, drinking the Water at the *King's Bath* received *Cure*, and gave publick Thanks in the great Church of *Bath*, dedicated to the Memory of the Apostles *Peter and Paul*, 7 September 1688.

LXXII.

Mr. *Robert Harrington* of *London*, having been a long time greatly afflicted with the *Spleen*,
the

the Tone of the Stomach and Bowels being too much relaxed by Over-Purgations and Wind; confessed he received much Benefit by bathing in the Queen's and King's Baths 7 September 1688. He said the drinking the Water did not agree. This among anomalous Observations.

LXXIII.

Fisher Littleton, Doctor of Laws, residing and practising at Doctors Commons in London, much afflicted with Cholick Pains, and finding no Relief from Advice of very eminent Physicians, at the Point of Death, came to Bath for Ease, and drank the Waters at the King's Bath at fit Seasons many Days, especially Spring and Fall, for Two Years. The first Year he received good, the second in a manner recovered, wanting very little of a Cure, which he afterwards obtained by the same Means. He gave Testimony 24 September 1688. For further Confirmation, he drank the Waters again 1690.

LXXIV.

Mr. Henry Higdon of London, Sixteen Years of Age, having half his Body, from the Navet downwards, nummed and very weak in December before, with Contractions in the lower Limbs, total Loss of Motion, but not of Sense, came to Bath 6 May 1687, and using the King and Queen's Baths two Months, went away out of Heart, without any Benefit. After one Week's Stay at Home, he found in the Parts formerly benumbed a Sense of Pain not very troublesome, but easy to be born, the animal Spirits then beginning to creep and resume their Motion; from which

which Time Strength *every* Day increased, so that in a *Month's* Time he could move Two or Three Steps with a very little Help; after *another* Month more, and by the Blessing of GOD, about *Christmas* he walked without a Staff, and the Twenty First of *April* walked abroad, and now useth a Staff for *Fashion*-sake only, not for *Necessity*. This Account from his own Mouth 24 *September* 1688, at *Bath*, when using the *King's* Bath for Confirmation, he gave *publick* Thanks to GOD, the prime Founder and *Creator* of the *Baths*, whence all good Things come, and subscribed *Henry Higdon*.

LXXV.

Ambrose Gill of *Bradnitch* in the County of *Devon*, Forty Two Years of Age, having a *general* Weakness in *all* his Limbs Fourteen Years; and Thirteen Weeks before his coming to *Bath* so weak that he could not go, came to *Bath* on Horseback 10 *September* 1688, used the *King's* and *Queen's* Bath Fourteen Days, drank somewhat of the Waters when he *bathed*, and more when he bathed *not*, and 25 *September* went away cured. This I had from Mr. *Ralph Fowler*, who was with him all the Time at *Bath*, and saw *Gill* go away with the Use of all his Limbs.

LXXVI.

Thomas Bonny of *London*, Fifteen Years of Age, having for a long Time had a *Fistula* in the inner Part of his right Thigh, much swollen from the *Groin* to the *Knee*, in the Month of *August* 1688, came to *Bath*, and bathing in the *King's* and *Queen's* Bath, and sometimes drink-
ing

ing of the Waters there, the sinewous Ulcer became cleansed, the Orifice almost closed, and the Tumour abated. He declared this Benefit 1 October 1688. The same Person having another Fistula in the Leg, *scaled* a Bone from the Tibia in the Use of the Bath. This Benefit he received at the Bath, since which Time he grew much worse, and is not yet cured.

LXXVII.

Another Youth of London, Nine Years of Age, having a Fistula in the outer Side of the left Thigh, found great Benefit by the Bath, 2 October 1688.

LXXVIII.

A poor lame Man 1684, came to Bath as well as he could, and used the King's, Queen's, and Leper's Bath many Weeks, went away without Benefit, and the next Spring returned cured, without other Help. He gave publick Thanks for a perfect Recovery 12 October 1688, and lodged at the House of Thomas Parker Chairman, at Bath.

LXXIX.

Edward Wyke, Gentleman, of the Parish of St. Margaret's Westminster, much troubled with the Spleen and Cholick, came to Bath 23 of July 1688, so full of Pain and very weak, that he went crooked, scorched with a continual Fever and great Thirst; drank the Waters from the King's Bath Dry Pump, as much as he could well bear for many Days; after one Month past he drank further on, and by long and constant drinking the Waters, without certain Doses, recovered

covered perfectly on the Place. For which so surprizing a *Benefit*, the pious Man gave publick Thanks to G O D, the great Reliever in all Diseases, and *supreme* Physician of Mankind, in the Church of St. Peter and Paul in Bath, 22 September 1688, and gratefully desired this Remembrance.

Note, In this Gentleman, 'tis very remarkable, the Bath Water did not pass the common Way, by Urine or Stool, but chiefly by Sweat; and that he was never above once or twice in the Bath.

LXXX.

Thomas Boniface of London, about Fifty Years of Age, in a Palsey, and Weakness of the lower Limbs, in the Month of June came to the Bath with Crutches, and using the King's and Queen's Bath one Month, laid aside his Crutches, which he hung up at his going away well, with great Joy 1688. In a short Time after he began to use the Bath, he could walk on Foot to the Bath, and back again to his Lodging, without Help.

LXXXI.

Edward Huddle of Chesham in the County of Bucks, about the End of August came to Bath with running Ulcers over all his Body; after great Charges for Cure, almost despairing of Relief, came to these Waters as the last Help and Hope of his Health, and using the King's and Queen's Bath Six Weeks, and drinking sparingly of the Water in the Bath, his Ulcers healed, and went away well in September 1688.

LXXXII.

LXXXII.

Ann Walker of *Herefordshire* came 1682 in a *Waggon*, having lost the Use of *all* her Limbs, so that she could not stand, much less go, but was carried in Arms like a Child, used the *King's Bath* all the Summer without any Benefit; the next Spring coming again, found good, and the Fall following using the same Bath again, perfectly recovered. From Relation 1688.

LXXXIII.

Henry Jones a Dutchman, coming to Bath with the Loss of Use of his right Arm and Hand, and using the *King and Queen's Bath* Fourteen Days, received Cure the same Year.

LXXXIV.

A Woman of *Herefordshire*, Forty Years of Age, and three Years so afflicted with a *Rheumatism*, that for all that Time she could neither dress nor feed her self, with Hands and Feet much swollen, came to Bath 1683, used the *King and Queen's Bath* Three Weeks, and received Cure. At the End of one Week she could put on her Cloaths, and help herself to Meat.

LXXXV.

Henry Cutler of *Lampert* in the County of *Somerset*, Blacksmith, long troubled with a *Palsy Universal*, and involuntary Trembling, especially of the Legs, used the *King's Bath* Three Months, and went away without Benefit; but in Eight Weeks Time after leaving the Bath, Strength did return to the weak Parts; and about *Michaelmas* the Year following, he came to Bath on foot, and gave to the Guides and Chairmen

Chairmen each a Pair of *Tobacco-Tongues*, of his own Work, which he brought with him, and were seen by me.

LXXXVI.

Tabitha Taylor of the Hospital of *St. Thomas* within the Borough of *Southwark*, came to *Bath* 1684, with Hams so contracted, that she went upon her Knees, and promoted her Motion with *Hand* and *Foot*, using the *King's* and *Queen's* Bath Three Months, was able to stand upright, and without *Crutch* or *Staff*, went away cured.

LXXXVII.

A young Man of *Warwickshire*, troubled with Pains universal from a *Rheumatism* 1684, used the *King's* and *Queen's* Bath Four Months, went away with greater Pains, about the Feast of *All-Saints*, which so afflicted him, as to deprive him of Sleep and Rest. He came to the Bath with *Crutches*, and going away by reason of great Tendernefs, could not use 'em; but about *Lady-Day* next ensuing, came to Bath on foot in good Health, and so continues.

Note, Hence it appears, the hotter Baths, in Affections purely Rheumatick, exasperate the Disease.

LXXXVIII.

A young Woman named *Dorothy Rossington*, near *London*, having Scales falling from all her Body, especially in the Morning in Bed, which usually attend the Leprosy called *Elephantiasy*, came to Bath in July 1688, and using the *King* and *Queen's* Bath Six Months, received Cure,
only

only some *itching* remained about the *Fingers*, which had no relation to the former Distemper.

LXXXIX.

William King, of *Bromham* in the County of *Wilts*, long troubled with a *Coldness* of Body; and continual *Shaking*, not unlike those in an *Ague*; and in so great a Degree of Coldness and *Chill*, that when many Cloaths were laid upon him, he scarce felt any Heat, and did use to sleep between Two Beds; came to Bath 1688, the last Day of *August*, and using the King and Queen's Bath Fourteen Days, received Cure of the said Coldness and Tremblings. He went away 13 September 1688.

XC.

Thomas Smart of the same County and Place, so tormented with Gripings in the Bowels, that he could neither stand upright nor sit, taking Rest no other ways than by bowing his Body, and leaning his Head on a Joint-Stool in a forward Posture, came to Bath the Week before *Whitsontide* 1688, drank the Waters, and used the King and Queen's Bath, and received Cure. Concerning this and the Ten immediately foregoing, *Thomas Parker*, Chairman at Bath, gave Testimony 13 October 1688.

XCI.

W. M. Esquire, in old Aches received Benefit from the Long or Hot Bath, 20 August 1688.

XCII.

A Gentlewoman of London; troubled with Rheumatism and Scurvy, used the Cross Bath one
C c Month,

Month, and said she found *Benefit*, 22 *August* 1688.

XCIII.

A *Matron* of *Devonshire* in an *inveterate Rheumatism*, using the *Cross Bath* received *Benefit* 30 *August* 1688.

XCIV.

Mr. *Richard Young* *Prebendary* of *Windsor*, having a *Weakness* in the *Ankle*, by the *Use* of the *Cross Bath*, and *Pump* in that *Bath*, received *Strength* in *August* 1688.

XCV.

A worthy *Knight* of *Devonshire*, in *Obstructions* of the *Liver* and *Bladder* of *Gall*, by *drinking* of the *Waters* *Twenty One Days* from the *Pump* at the *King's Bath*, received *Benefit* 8 *October* 1688.

XCVI.

Joseph Pleydall *Arch-Deacon* of *Chichester*, in *Rheumatick Affections*, and *full Habit* of *Body*, by the *Use* of the *Cross Bath* received great *Benefit* 4 *October* 1688. He *drank* the *Waters* in the *Morning*, and *bathed* at *Night*.

XCVII.

A certain *Person unknown*, for *Benefit* received in *Distempers* relating to the *Passages* of *Urine*, gave *publick Thanks* in the *Church* of *St. Peter* and *Paul* in *Bath*, 14 *October* 1688.

XCVIII.

Returning from a long *Journey* I had then *rode*, and falling into a very painful *Sciatica* presently

presently after, by the Use of the King's Bath only three Times, I received Cure 18 September 1675.

XCIX.

Having also a *Weakness* in the Wrist of my right Hand, using the same Baths, and taking Five Hundred Pumps from the Pump in the King's Bath, by the Blessing of G O D, I had present Help and Strength, 14 September the same Year.

C.

In the Year 1688, 1 of May, being at Rochester in Kent, and willing to see that *antient* Cathedral there, and the Dock at Chatham, after kind Entertainment on board some of His Majesty's Ships, too late at Night I passed the Water, and immediately lost the Use of my right Hand and Arm by a Rheumatism, which by Blood-letting, and some Topics, I afterwards recovered at London; but the Weakness of the Parts still continuing, I received Strength in the same, by the Use of the Cross, Queen's, and King's Bath at Bath, and that Hand with which, by the Goodness of G O D, I now write, received perfect Cure.

For which, and all other his greater Benefits, to the True God, Chief of Physicians, and supreme Healer of the Sick, Weak, Lamé, and otherways diseased, and of all that with Faith and Confidence securely rest on Him, Preserver and Avenger, be given all Glory, Honour, Praise, and Thanks; World without End.



Observations *communicated* ;
Some *before* my Time at the
Bath, *others since*.

I.

S I R *Humphrey Lloyd*, or *Lluyd*, Knight, that
learned *Cambro-Briton*, by a Fall from his
Horse at *Milan* in *Italy* ; being troubled with a
Sciatica for *Twelve Months* Time, and getting
no Relief by the Advice of *many* learned Phy-
sicians, in *Six* Days using the *Baths* of *Bath*,
perfectly recovered ; from his own Testimony,
in his *learned* Fragment of the Description of
Britain, p. 16. Time not mentioned.

II.

Mr. *Richard Roe* Minister of *G O D's* Word,
and Preacher at *Warwick*, in the Year 1629,
troubled with a *Palsy Universal*, and low Ha-
bit of Body, near, as was judged by all that
knew him, the *End* of his Life, about *Fifty*
Years of Age, by the Use of the *King's* Bath,
received *Cure* ; from his *own* Words in a Table
in *English*, formerly standing by the *King's*
Bath-side, and translated by me into *Latin* in
my *Latin* Tract *De Thermis Britannicis*, or the
Baths of *Bath*. p. 301.

III.

III.

A little before this Time, Sir *Francis Stonor* of *Stonor* in the County of *Oxon*, Kt. received *Benefit* in great Weakness from the *Gout*, by the Use of the *Queen's* and *King's* Baths; and gave a considerable *Gift* in Money, by which the *Stone Rails* were built about the *King's*, and many other Things done for the Ornament of *that* Bath, mentioned *elsewhere*, about the Year 1625.

IV.

About the Year 1640, a *Welsh* Gentleman, Operator, concerned in the *Silver* Mines in *Wales*, was stricken with a poisonous Steam, to the Loss of Use of all his Limbs, in the Place where they wrought; and presently coming in a *Coach* to *Bath*, was advised by *Doctor Bave*, an old eminent Physician, then practising on the Place, to the Use of the *King's* Bath, where, by the Help of *bathing*, and the *Scum* of the *Bath* applied to the Parts affected, in the Nature of a *Pultice*, in a *Month's* Time he could stand and walk a little; and in three *Months* Time so well recovered, that he could go without the Help of a *Staff*, and rid a mettled Horse home well. He was cured in one Season of *bathing*. This from *William Purlewent* an old Servant of the *Doctor's*, now living, and *Green-keeper* at *Bath*, who attended the Patient.

V.

Adam Pine near *Barnstaple* in the County of *Devon*, in a *Palsy Universal*, with Sense remaining, in the Year 1658, came to *Bath*, and using the *King's* and *Queen's* Bath Six Weeks,

so far *recovered* as to feed her self, and spending the *Winter* in the Country, where she sensibly *recovered* by Degrees; the Third of *May* following came to *Bath* in much *better* Condition, and *some* Years after that, frequenting the *Bath*, received *Cure*. This from an *Eye-witness*.

VI.

The Honourable Lady *Noel*, lame, commended by *Dr. Walter Needham*, told me, that both her self and *Son*, being formerly afflicted with *convulsive* Motions, and weak in one Leg, taking the Water of the *Hot Bath* by my Advice, had a *loose Body*, and two *Stools* every Day, 6 August 1669. *Dr. Maplet*.

VII.

The *Aunt* of the former Lady told me, that the *first* Day she entred the *Cross Bath*, she found the *Womb* that had been fallen *Eighteen Years*, presently mended, and *return* into its Place, where it did *afterwards* continue. *Dr. Maplet*.

VIII.

The Noble Dame *Elizabeth Spencer*, in the *Gout*, did affirm the Water from the *Queen's Bath Pump*, taken *twice* a Day, had a *free Passage* by *Urine*, 16 August 1669. *Dr. Maplet*.



THE
REGISTER
OF
BATH.

Second CENTURY.

I.



MR Richard Crump Knight, and Alderman of the City of Bristol, much grieved with *old Aches*, occasioned by a *Fall* from his Horse, by which all the *Left Side*, especially the Head, Shoulder, and Arm, became *contused* and *sore* bruised; after the Use of *many Remedies* to no Purpose, came to Bath 1676, where, using the *King's* and *Queen's* Bath Three *Weeks*, and much *pumping*, he found *little* Benefit on the Place; but Two Days after his Return to Bristol, had the Pains abated, which,

after *Three Weeks* there, went all off, and never came again. He gave Testimony of *perfect Cure* 2 September 1689, at *Bath*; and added,
The Truth of this I aver,

Richard Crumpe.

II.

Richard Vernon, Son of Mr. George Vernon Rector of Bourton on the Water, in the County of Gloucester, Fourteen Years of Age, and Ten Years troubled with a milder sort of Leprosy, called an Elephantiasy, with tawny Spots, and white Scales infesting the Skin, drank the Water at the King's Bath seven Days, then using the King's and Queen's Bath Three Weeks, seemed perfectly recovered. He also took the Quantity of a large Nutmeg of an Electuary, that cleanseth the Blood first and last, and drank a little of the Bath Water, both in the Bath and Bed. Father and Son gave Testimony 6 June 1689. The Father said, That about this Time the Disease did usually break forth; and the Winter following I heard it did so, being so long put off by the Use of the Bath, where a longer Stay was requisite, and after Eight Weeks Time at Bath, the Year following, he went away well, 19 June 1690.

III.

Henry Clempson of Eversholt in the County of Bedford, Shoemaker, came to Bath, Whit-Monday 1687; used the Hot Bath, and sometimes the Lepers, Three Months, and the Year following the Hot Bath only the Space of Two Months, and the Third Year 1689, 29 May, gave publick Thanks to Almighty G O D, who, by the Help
of

of the Bath, had cured him of a white dry Leprosy, with many Scales, called Elephantiasy confirmed, which had miserably afflicted him for Six Years before. He gave Testimony 8 July 1689.

IV.

Francis Hechington of Northallerton in the County of York, Thirty One Years of Age, came to Bath 10 June 1689, with a great white Swelling on his left Knee for Six Months before; used the Hot Bath, and Pump in the same, but Five Days, and was cured. The Tumour being discussed, and Weakness remaining, Confirmation only was expected from the Bath. He gave Testimony 20 June 1689.

Note, This Tumour was more Flatulent, than Pituitose, Wind more easily yielding to the Heat of the Waters, than Phlegm.

V.

The Right Reverend THOMAS Lord Bishop of BATH and WELLS, drank the Waters at the King's Bath 1690, in the Month of September, and received Benefit.

VI.

The Right Reverend GILBERT Lord Bishop of BRISTOL then, now of HEREFORD, drank the Waters at the same Time in the Spleen, and found Advantage.

VII.

John Mathew Esquire, having used the King's and Queen's Bath many Years, and that Year
in

in particular, at the *same* Season, received *Benefit*.

VIII.

Orlando Pain long troubled with a filthy *Leprosy*, sent to the *Bath*, and maintained there, by *THOMAS* Lord Bishop of *Bath* and *Wells*, all the *Winter* 1690, in *Fourteen Weeks* Use of the *Hot* and *Lepers Bath*, received *Cure*. The Reverend Mr. *Clement* Rector of *Bath*, gave this Account to me, then at *London*, by Letter, dated 18 *February* 1691.

IX.

Mr. *James Ellesbie*, the learned and pious Vicar of *Chiswick* upon *Thames*, in the lax'd Tone of the *Fibres* of the *Stomach* and *Guts*, thin *Habit* of *Body*, like *consumptive*, with a great *Languor* and *Decay* of *Strength*, drinking the *Bath Waters*, received great *Benefit*, and gave publick Thanks in the Church of *St. Peter* and *Paul* at *Bath*, in *May* 1690. He drank the *Waters* again in the *Fall* the *same* Year, and grew better upon it. I saw him very well in *London* 12 *November* 1690.

X.

I *James Hastings* of the *Catherine-Wheel* in the *City* of *Bath*, in the *County* of *Somerset*, Gentleman, do testify, That in the *Years* 1688 and 89, being troubled with a *Palsy Universal*, and very great *Weakness*, which for *Twenty Five Weeks* confined me to my *Bed*; by the Use of the *King's* and *Queen's Bath* many Months, received *Cure* on the Place. I also used the *Bath* at fit Times in the *Winter* Season. This I
give

give under my Hand, 9 July 1690. James Hastings.

XI.

Mr. Francis Molineux of Stratford upon Avon, in the County of Warwick, Sixty Five Years of Age, came to Bath on Midsummer-day 1690, having lost the Use of his right Hand and Arm half a Year, using the King's and Queen's Bath only Three Weeks, perfectly recovered both Sense and Motion upon the Place. The nimble jocund old Gentleman subscribed merrily 14 July 1690. F. M.

XII.

I Robert Sheyler at the Turk's Head Coffee-house in Bath, do testify, That I was perfectly cured of a Sciatica by Three Times bathing in the King's Bath. In witness whereof I have subscribed my Name 6 August 1690. Robert Sheyler.

XIII.

A Gentlewoman, for Benefit received by the Bath, returned Thanks to Almighty GOD, the Fountain of Healing, in the Church of St. Peter and Paul at Bath, 6 August 1690.

XIV.

Madam Wogan of London, being lame, and using the King's and Queen's Bath a considerable Time, received no Benefit on the Place, but recovered at Home 1689. She gave Testimony of Cure 4 November 1690.

XV.

XV.

Mr. *William Dixie*, Son to Sir *Beaumont Dixie* of *Market-Bosworth* in the County of *Leicester*, Baronet, sadly afflicted with a *Rheumatism* Five Months, which had reduced him to that Degree of Weakness, that at Twenty Two Years of Age, he seemed an old decrepid Man upon *Crutches*: After all Advice possible in London, came very pensive to the Bath 23 August 1690, where using the *Cross Bath* Two Months, and the *Pump* Twenty Four Days, Number of *Pumps* uncertain, could walk without Help on the Place first, and there perfectly recovered; for which great Mercy, and unexpected Recovery, he gave publick Thanks to GOD in the greatest Church in Bath, 1 October 1690, then appointed for a general *Thanksgiving* Day through the Kingdom of *England*. This I had from his own Mouth 21 October following, as I came up with him to the august *Metropolis* of the *English* Nation, in the same Coach.

XVI.

Mrs. *Elizabeth Crapon* of *Marlborough* in the County of *Wilts*, came to Bath 1 of May 1690, troubled, besides *Hysterical Fits*, with a contracted, cold, withered Hand and Arm, lame on all the left Side, without Appetite, and reduced to a very low Condition of Body; used the *Cross Bath* Three Times, and afterwards the *King's* and *Queen's* Ten Weeks, went away rather worse than better; came again the next Year the beginning of *June*, continued a Month's Time the Use of the *King's* and *Queen's* Bath, went away much weaker than she came; but in a Week's Time mended, and by Degrees recovered

covered the Use of *all* the Parts formerly ill affected, and is now *well*. She found the *Hysterical Fits* provoked by the *Bath*, and drinking the Waters *in* and *out* of the *Bath*, got such a *Stomach*, that she grew of good *Habit* of Body in a *little* time after, and so *continues*, having this Year used the *Bath* for *Confirmation*. She gave Testimony of a *general Cure*, 10 of September 1692, in the Presence of Mr. *Thomas Gibbs* Apothecary in *Bath*.

XVII.

Charles Denham of *Bishopsgate street*, now Porter at the *Blossoms-Inn* in *St. Laurence-lane*, *London*, about *Thirty Years* of Age, came to *Bath* in *July* 1689, troubled with *great Weakness*, and Want of *Motion* of both his Legs for the Space of *Two Years*; used the *King's Bath* *Three Weeks*, and found *Benefit* after his Return; came to *Bath* again for *Two Years* following, and the *Third Time* was able to go without his *Crutches*, which he had used for the Space of *Five Years* before, and hung 'em up at the *King's Bath*, in Acknowledgment of his *Recovery*. He subscribed this Testimony 2d Day of *July* 1691. *Charles Denham*.

XVIII.

George Long of *Downshead* in the County of *Somerset*, Esquire, received *great Benefit* in the Year 1692, by bathing in the *Cross Bath*, and drinking the Waters at the *King's*, in *Arthritick* Distempers. He lost his *grey Hairs*, and had *new Hair* and *Nails*, which is attributed to the *Bath*, and is a *singular Instance*.

XIX.

Mr. *John Burrough* of *Bednal-Green* in the County of *Middlesex*, came to Bath 3 of *August* 1692, with a *Sciatica* on the *Left Side*; used the *King's* and *Queen's Bath* Five Weeks, pumped several Times on the Part affected to the Number of 2000 and upwards at one Time. The Pains removed after Four Pumpings, then continuing 1000 Pumps, after Ten Times pumping 1000, received a perfect Cure. By me *John Burrough*.

XX.

Mr. *Hugh Hall* of *Nantwich* in the County of *Chester*, in an inveterate *Spleen*, much afflicting both the *Stomach* and *Head*, by the Use of an *Antisplenetic* Electuary and Drink over-night, and drinking the Waters from the *King's Bath Dry Pump* in the Morning, received great Benefit 1692. He afterwards writ he was in great Hopes of perfect Cure.

XXI.

The learned and pious Mr. *Thomas Wilkins* Prebendary of *Llandaffe*, well skilled in the *British Antiquities*, in a *Sciatica*, using the *King's Bath* Four Times, and the Pump only 200 twice, received perfect Cure in the Month of *June* 1683. He writ, that from that Time, by the Blessing of *G O D*, he continued well, in a Letter dated *Michaelmas-Day* 1692.

XXII.

I *Richard Robinson* of *West-Chester*, some time *Serjeant* in the Company of Captain *Donalson*, having received several Wounds in my *Head*, and *Right Arm*, to the Loss of Motion in that
Arm;

Arm, which had continued from the 27 of *July* 1689, came to *Bath* 4 of *June* 1692, continued there *Three Weeks*, used the *King's* and *Queen's* Bath, and pumped on the Part; and by the Use of these Means, and *G O D's Blessing* on the same, recovered the *perfect* Use of my Arm, as *before* my Wounds, which were received in *Battle* against the late *Viscount* of *Dundee*, in the *Highlands* of *Scotland*. Witness my Hand this 28 Day of *June* 1692. *Richard Robinson*; and added, *Subscribed with the Hand of that Arm that had been so long lame.*

XXIII.

I *John Burch* of *Goadburst* in the County of *Kent*, Yeoman, came to *Bath* 30 of *April* 1691, troubled *Three Years* before with a *white scurfy Skin* and *Head*, under the Scales were *reddish* Spots, most commonly *round*: I used the *King's* and *Queen's* Bath *Nine Weeks*, found *Benefit*, and acknowledged my *Cure* 22 Day of *August* 1692. Witness my Hand, *John Burch*.

XXIV.

Jacob Clark of *Palten* in the County of *Somerset*, Cordwainer, came to *Bath* 26 *September* 1692, troubled with a *Sciatica* in the *Left Side*, near *Twelve Months* Time, that he could not stand alone all the Winter, with some Pains in *Knee* and *Ankle* of the same Side; used the *King's* and *Queen's* Bath *Fourteen Days*, and pumped to the Number of 1200 at some Times, went away 8 *October*, and came again a *Fortnight* after, and acknowledged the *Benefit*, being able to go well alone, and without a Staff. He gave
Testimony

Testimony 22 of October 1692, and subscribed
Jacob Clark.

XXV.

Mary Yates, Servant to the worthy, my honoured good Friend *John Kyrle* of *Ross* in the County of *Hereford*, Esquire, received Cure of a great *Weakness* in all her *Limbs*, by *GOD's* Blessing on the Use of the *King's* and *Queen's* Bath, and pumping there 17 October 1692. She came again for Pains in her Head 7 November following, and received *Benefit*.

XXVI.

The Honourable Lord *JOHN MORDAUNT* eldest Son to the Right Honourable *CHARLES* Earl of *Monmouth*, came to Bath 9 of September 1692, with a great Contraction of the Right Ham, which hindered both Use and Motion of that Leg : After many Things preparatory by the Skill of an Artist, eminent in London, he used the Cross Bath Seven Weeks, found *Benefit* on the Place, and in Three Weeks Time after his Return, perfectly recovered. He gave Testimony of Cure 20 September 1693 at Bath.

XXVII.

A Child of Mr. *Richard Ford* Apothecary in Bath, Sixteen Weeks old, and from the Time of his Birth, troubled with much *Phlegm* in the Chest, which caused an *Asthma*, with very troublesome Sweats, sucking the Mother, who drank the Bath Waters, received Cure, and made the same Effects as if the Child had drank the Waters himself. The Father gave Testimony 26 March 1693.

XXVIII.

XXVIII.

John Comer of *Bratton Flemming* near *Barnestable* in the County of *Devon*, Husbandman, came to *Bath*, *May-Day* 1692, troubled with a *Sciatica* above *Twelve Months*, used the *King's* and *Queen's Bath*, and *Pump* *Three Weeks*, went away not much better, but *Six Weeks* after recovered at Home, and came well to *Bath* 13 *May* 1693, having then a small hard *Tumour* on his *Right Hand*, in which, by the Use of *batbing* and *pumping* in the *same Bath*, he received *Benefit*, and went away 29 *May* 1693. He acknowledged his *Cure* of a *Sciatica* 27 *May* 1693, and subscribed *John Comer*.

XXIX.

Mrs. Margaret Hall Daughter of *Mr. John Hall*, Chirurgeon, in *Ross* in the County of *Hereford*, received *Cure* of *Cachexie*, and great *Obstructions*, by *bathing* and *drinking* at convenient *Times* for a *Month*; went away 6 *June* 1693, and subscribed *Margaret Hall*.

XXX.

Daniel Weare of *Brockenborough* near *Malmsbury*, came to *Bath* lame in his own *Cart*, 4 *July* 1692, used the *King's* and *Queen's Bath* and *Pump*, returned in *Cart* with little *Amendment* the *Second* of *August* following, but recovered in the *Country*. He came to *Bath* on *Foot* 2 *January* 1693, acknowledged *Cure* 2 *June* 1693, and subscribed *Daniel Weare*.

XXXI.

Joseph Peake of *North-Gorely* near *Fordingbridge* in the County of *Southampton*, Husband-
D d man,

man, came to Bath 24 May 1692, troubled with a lame Arm, and contracted Fingers, to the Loss of Use of that Arm and Hand, continued bathing and pumping in the Hot Bath Fourteen Days, went away with much Benefit 7 June 1693. Joseph Peake.

XXXII.

Herthy Harper, a Leper, received great Benefit by the Leper's Bath 1693.

XXXIII.

Elizabeth Smith, a Leper, with Skin covered over with Scales, received Benefit by the same Bath, and went away with a clean Skin, 1693.

XXXIV.

Avery Cook having lost the Use of both Hands by Numbness, recovered by the Use of the same Bath, 1693.

XXXV.

Henry Johnson, a Dane, with old Sores, and running Ulcers in the Legs, Hands, and Face, received Cure by the same Bath at Two Seasons, the last 1693.

XXXVI.

Edward Baxter, lame, came to Bath with Crutches, and went away so well as not to need 'em, but left 'em at the Bath 1693. He used the Leper's Bath.

XXXVII.

Robert Bret of Cordenham in the County of Cornwall, came to Bath a Cripple, the Use of all his Limbs being taken away with Wrestling ;
came

came with *Crutches*, and received so much *Benefit* as to go away with a *Staff*, and is now so *recovered* as to need *nothing*, but continues a stout Man. He used the *King's Bath* 1693.

XXXVIII.

Samuel Bret Brother of the said *Robert*, came to *Bath* with a *foul Skin*, used the *King's* and *Queen's Bath* Fourteen Days, and received *Cure* 1693.

XXXIX.

Sarah Meredith of *Carleen*, received *Benefit* in an *Elephantiasy* by the *Hot Bath* 1693.

XL.

Howel Morgan Esquire, of the County of *Merioneth* in *Wales*, received great *Benefit* in a *foul Skin*, with *white Scales* resembling an *Elephantiasy*, by *drinking* and *bathing* in the *King's Bath* 1692; and farther advanced to a *Cure* by the *same Bath* 1693.

XLI.

Mr. Thomas Ebarnden near *Maidstone* in *Kent*, received *Benefit* by *bathing* in the *King's Bath*, in great *Weakness* in his lower *Limbs*, and a *Tumour* in his *Knee*, 1693.

XLII.

Mr. Thomas Quelfh of *New-Mills* near *Twiford*, received *Benefit* in a *Tumour* on one of his *Knees*, by *bathing* and *pumping* in the *King's Bath*, 1693.

XLIII.

John Marlow of *St. Catherine's* near the *Tower* of *London*, received great *Benefit* in *Weakness*,

and Want of Motion of one Arm, by *bathing and pumping* in the King's Bath, 1693.

XLIV.

Anne Marlow living with the said *John*, in the *Head-ach*, by *drinking* the Waters, and *pumping* at the King's Bath, received Cure, 1693.

XLV.

Mrs. Finch of *Reading* in the County of *Berks*, received great Benefit in *Obstructions*, and *uterine Distempers*, by *drinking* the Waters, and *bathing* in the same Bath, 1693.

XLVI.

Captain Robert Millington, Captain of a Troop in the *Horse-Guards* belonging to the Right Honourable the Earl of OXFORD, received great Benefit by *bathing, drinking, and pumping* in the King's Bath, in *Contraction* of the Ham, and *Swelling* on the Knee, 1693. The *Contraction* was cured.

XLVII.

Mr. Hall of *King-street, Bloomsbury*, received Benefit in a great *Swelling*, and want of Motion of one Arm, by *bathing and drinking* the Waters at the King's Bath 1693.

XLVIII.

Sir David Thoers Knight, and Advocate in *Edinburgh*, in the antient Kingdom of *Scotland*, received Benefit in *Weakness* in the *Instep*, and want of Motion of one Leg. He used the King's Bath 1693.

XLIX.

XLIX.

Sir David Kenloch of the same Kingdom, Knight, received Benefit by drinking the Waters, and bathing in the King's and Queen's Bath 1693.

L.

The Reverend Mr. Pead Rector of Clerkenwell, London, in the Want of Motion of one Arm, received Benefit 1693.

LI.

Madam Parnel Wry near Oxford, by the Use the Cross Bath, and Mud of the King's, in a Swelling on the Knee, received great Benefit 1693.

LII.

Mr. Thompson in the Pall-Mall, London, in Cephalick Distempers, by bathing, drinking, and pumping at the King's Bath, received Benefit 1693. Bleeding freely afterwards at London from the Arm, he mended more at Home.

LIII.

Mr. Harman near Norwich, received great Benefit by drinking the Waters, and bathing in a high scorbutick Distemper, and redness of Face. He used the King's and Queen's Bath 1693.

LIV.

William York of Bassett-Down near Swindon in the County of Wilts, Esquire, received Benefit by drinking the Waters, and bathing in the King's Bath, in Distempers of the Stomach and Head, 1693.

LV.

Mr. Richard Yorath Chaplain to Thomas Morgan of Tredegar in the County of Monmouth, Esquire, received great Benefit in a *consumptive* extenuated Condition, and *scorbutick Atrophy*, by drinking the Waters at the King's Bath 1693. He bathed *sometimes*, but not often.

LVI.

Mr. Edward Peirce, an Irish Gentleman, received great Benefit by drinking the Waters, and bathing in the Queen's and King's Bath, in *Rheumatick* Pains over all his Body, which at last almost deprived him of the Use of his Right Arm. Also Benefit was received in Distempers of the Blood, and *nervous* Parts, and others, proceeding from hard Lying, in the late Troubles in Ireland 1693.

LVII.

Mr. Lowe Musician in London, received Benefit by drinking the Waters at the King's Bath, in the *Hypochondriacal* Distemper affecting the Head, 1693.

LVIII.

Mr. Reginald Heber of the Middle-Temple, received great Benefit by bathing and drinking the Waters at the King's Bath, in Acknowledgment of which, he gave a Copper Cup to drink the Waters from the lesser Pump in the King's Bath. I saw him well at Bath 1693.

LIX.

Mr. Abraham Correa of Duke's-Place, London, received Benefit in a *scorbutick Rheumatism*, by drinking

drinking the Waters, and bathing in the King's Bath 1693.

LX.

I *John Over* of *Elverton* in the County of *Southampton*, Husbandman, do testify, That on the Third of *September 1693*, I came to *Bath* troubled with running Pains, by Cold, in all my Limbs, and a Sore in my Right Leg of long Continuance, used the *King's and Queen's Bath* Three Weeks, went away with great Benefit, and Hopes of perfect Cure, the Sore at this Time almost closed. Witness my Hand this Twenty Fourth Day of *September 1693*. *John Over*.

LXI.

In the Year 1680, *Daniel Elwell* of *Sedgely* in the County of *Stafford*, Gentleman, had the Misfortune to be dislocated in the Back, and lay for the Space of Three Years not able to dress himself, go or stand, to the great Grief of all his Friends, during which Time he had the Advice of *Dr. Cole*, *Dr. Reynolds*, *Dr. Morton*, and several Chirurgeons, but to no Purpose, till, by the Advice of *Dr. Cole*, he went to the *Bath*, where, following Directions in *bathing and drinking the Waters*, it pleased G O D to restore him to his *Health and Strength* as formerly. Witness my Hand this 25th Day of *September 1693*. *Daniel Elwell*.

Note, This Case was drawn up by himself, and printed from a Copy of his own Hand-writing; and that the Reduction of the *dislocated Spondyle* was facilitated by the *Bath*. See *Cent. i. N. xxi.*

LXII.

Hester Browse of *Bradford* in the County of *Wilts*, received *Benefit* by drinking the Waters, and bathing in the *King's* and *Queen's* Bath, in an *Elephantiasy*, or white scaly Skin, 1692 and 1693.

LXIII.

The *Lady Margaret Montgomery* of *Scotland*, benumbed in all her Limbs, received *Cure* at the Bath 1693. She bathed in the *King's* and *Queen's* Bath, and drank the Waters there. This from *Mr. John Sherstone* Serjeant of the *King's* and *Queen's* Bath.

LXIV.

Mr. Crumpe at the *Half-Moon Tavern* in the *Strand*, *London*, of a full Habit of Body, and troubled with *Rheumatick* Pains over all Parts, using the *King's* and *Queen's* Bath, and drinking the Waters there, received great *Benefit* 1693.

LXV.

Sir Ambrose Phillips Knight, of the *Middle-Temple*, *London*, in a *Rheumatism*, by the Use of the *King's* and *Queen's* Bath, and drinking the Waters, received *Cure* 1693.

LXVI.

Madam Phillips of *London*, in a *Palsy*, or Relaxation of the *Muscles* of the Throat, which rendered swallowing any Thing very difficult, by bathing and drinking the Waters at the *King's* Bath, received great *Benefit* 1693. Before she left the Bath, she could eat and drink much better than when she came.

LXVII.

LXVII.

Mr. Rolstone of Topsham, lame on both Hands, by the Use of the King's and Queen's Bath received great Benefit 1693.

LXVIII.

Lucy Chandler of Ushant in the County of Wilts, came to Bath with Crutches, very lame in her lower Limbs, used the King's Bath, and received Cure 1693. She left her Crutches here, and went Home well.

LXIX.

William Johnson, a Seaman, not able to lift his Hand to his Head when he came, received Cure at the King's Bath 1693.

LXX.

Captain Soley Captain of a Ship at Wapping, in great Lameness, by the Use of the King's Bath received Cure 1693.

LXXI.

Ann Smith of Midford near Bath, lame, using the King's Bath one Week only, received Cure 1693.

LXXII.

Elizabeth Meseler of St. George's-Fields in Southwark, came lame to Bath with Crutches, used the King's Bath, and was cured 1693. She left her Crutches here.

LXXIII.

LXXIII.

Mr. *Nicholas Blanch* in *Wild-street*, near *Wild-House*, lame; by the Use of the *King's Bath* received *Cure* 1693.

LXXIV.

Mr. *Hawkins* Butcher in *Smithfield*, received *Cure* of *Lameness* 1693. He used the *King's Bath*.

LXXV.

Mr. *Smith* Gold and Silver Wire-Drawer in *London*, in an ill Disposition of Blood, much discolouring the Skin, by the *King's Bath* received *Cure* 1693.

LXXVI.

James Berry, in great *Weakness* of the *Hands*, received *Benefit* by the *King's Bath* 1693.

LXXVII.

John Rushton Esquire, in a *Palsy*, and Want of Motion of one Arm, using the *King's* and *Queen's Bath*, received *Benefit* at several Seasons. The last 1693.

LXXVIII.

Thomas Shell of *Roud* in the County of *Wilts*, lame, came to *Bath* with *Crutches*, and left 'em here 1693. He used the *King's Bath*.

LXXIX.

LXXIX.

Mr. Collins of London, in great Weakness of Limbs, especially both Hands, received Cure by the King's Bath 1693.

LXXX.

Madam Walter, in great Weakness and Pains in all her Limbs, received much Benefit 1693. She used the King's Bath.

LXXXI.

Mrs. Mary Cole of Ditcheat in the County of Somerset, in a general Weakness, received great Benefit 1693. She used the Queen's and King's Bath.

LXXXII.

Mr. Stirrat a Scotchman, by the Use of the King's Bath received great Benefit in a Palsy 1693.

Note, The last Twenty are mentioned from Serjeant Sherstone, Serjeant of the King's and Queen's Bath.

LXXXIII.

Mrs. Woodcock, in a high scorbutick Distemper, much discolouring the Skin, by drinking the Waters, and using the Hot Bath, received Benefit at several Seasons of bathing and drinking.

LXXXIV.

Madam Boothby in Aldersgate-street, London, in great Tenderneſs of Body, and general Weakneſs

ness of the *Nerves* and *fibrous* Parts of the *Inside* especially, by *drinking* the Waters at the *King's* Bath received *Benefit* 1693. *Hannah Boothby.*

LXXXV.

Mr. Randal Taylor near *Stationers-Hall*, *London*, in *Weakness* and *Want of Motion* of *one* Arm, by *bathing* and *pumping* at the *King's* Bath, at *several* Seasons, received *Benefit*.

LXXXVI.

Mr. Randal Smith of *Minshall-Hall* in the County of *Chester*, in a very low *extenuated* Habit of Body, and much troubled with the *Faundice*; by *drinking* a considerable Time the Waters from the *King's* Bath Dry Pump, and sometimes *bathing* in the *Queen's* Bath, received *great* Benefit 1693.

LXXXVII.

Mrs. Cole of *Barnestaple*, in the County of *Devon*, in the *Spleen* and *Scurvy*, by *drinking* the Waters, and *bathing* in the *Queen's* and *King's* Bath, as directed, at *several* Seasons of *bathing* and *drinking*, received *Benefit*.

LXXXVIII.

William Lacy Esquire, late *High Sheriff* of the County of *Somerset*, in great *Weakness* of *one* of his Arms, *Hand*, and *Fingers*, by *drinking* the Waters, and *bathing* in the *Cross* Bath, received *great* Benefit. He used the *Cross* Bath at *several* Seasons.

LXXXIX.

LXXXIX.

A Daughter of Mr. *Jonathan Lovel* Apothecary in *Rofs* in the County of *Hereford*, in *Lamenefs* and *Weaknefs* of *one Leg*, by the Use of the *King's Bath*, received *Benefit* 1693.

XC.

Madam Barber in the *Spleen* and inward *Obstructions*, drinking the *Waters*, both on the *Place* and in the *Country*, received *Benefit* 1693.

XCI.

Major Ryan of *Islington* near *London*, by drinking the *Waters*, and bathing in the *King's Bath*, received *Benefit* 1693.

XCII.

Mrs. Gill a young *Gentlewoman* of *Cheshire*, lame in *one Arm* and *Hand*, by drinking, bathing and pumping at the *King's Bath*, received *Benefit* 1693.

XCIII.

Mrs. Oates of *Kingston* upon *Thames*, in a general *Weaknefs*; by the Use of the *Queen's* and *King's Bath* received *Benefit* 1693.

XCIV.

Mrs. Mainwaring in *Cheshire*, in full *Habit* of *Body*, and *Obstructions*; by bathing in the *King's* and *Queen's Bath*, and drinking the *Waters*, received *Benefit* 1693.

XCV.

XCV.

Mr. Covert, in a *Palsey* of one Side, much afflicting the Leg, by the Use of the King's Bath received *Benefit* 1693.

XCVI.

Mr. Higginson of *Westchester*, in inward *Distempers* afflicting the Head and Stomach; by drinking the Waters at the King's Bath received *Benefit* 1693.

XCVII.

Mrs. Mary Guest of Bath, received Cure of great Weakness and Numness in the lower Limbs, by Use of the King's Bath, and pumping in the same. She is now recover'd, and gave Testimony 8 November 1693, at Mr. Berkeley Carne's House in Bath.

XCVIII.

John Glass Carver in Bath, received Cure of a *Sciatica* in Thrice bathing in the Hot Bath, without pumping. He gave Testimony 10 November 1693.

XCIX.

Edward Bushe, Alderman and Mayor of Bath, received great Benefit in *nephritick* Distempers and bloody Urine, by drinking the Waters at the King's Bath. Gave Testimony 22 November 1693, at Bath.

C.

A young Man recommended to me by Mr. G. Harrison, eldest Son to Dr. William Harrison,
D. D.

D. D. and Master of *St. Cross* near *Winchester* in the County of *Southampton*, in these Words: Sir, The Bearer having received a great deal of Benefit from drinking the Waters, if you think fit, may make one in your Account: He can better tell you his Distemper and Recovery, than myself, I will therefore leave it to him. I am, Sir, Yours, G. H. The Case thus: *Henry Dunne* of *Milbrook* near *Southampton*, troubled with *Scorbute* and *Hypochondriacal Melancholy*, indisposing much the *Stomach* and *Spleen*, and afflicting the *Head*, in a weak and languishing Condition, drank the Waters of the *King's Bath* Five Weeks, and found great Alterations, a clear *Head*, and good *Habit of Body*, very much to Satisfaction, and now digesteth well, and thrives. He gave this Testimony 29 November 1693. The next Day I came for *London*.





*Benefactors, or Givers of Brass
Rings, to hold by in the Bath,
for Cures, or Benefits, not ex-
pressed.*

Lidia White, Daughter of William White Citi-
zen and Clothier of London, 1612. Cross
Bath.

Lady Elizabeth Poulet, Wife of Sir John Pou-
let of Winchester, Knight, 1631. Cross Bath.

P. K. 1635. Cross Bath.

T. D. J. 1639. Cross Bath.

T. C. 1639. Cross Bath.

E. F. without Date, King's Bath.

T. E. D. without Date, King's Bath.

Richard Pember, without Date, Queen's Bath.

Samuel Carington, 1661. Cross Bath.

Thomas Wyndham of Witham in the County of
Somerset, Esquire, 1664. King's Bath.

Roger

Roger Kempe, Citizen and Skinner of London, 1667. *King's Bath.*

Humphry Wykham of *Swalelift* in the County of *Oxon*, Esquire, 1673. *Cross Bath.*

Mary, Wife of *John Rows* of *Tachbrook* in the County of *Warwick*, Esquire, 1673. *Cross Bath.*

The Lady *ANN GREVIL* eldest Daughter to the Right Honourable *ROBERT* late Baron *BROOKE*, now Countess of *KINGTON*, 1674. *Cross Bath.*

BARBARA Dutches of *CLEVELAND*, 1674. *Cross Bath.*

Dutches of *PORTSMOUTH*, 1674. *Cross Bath.*

The Lady *ESSEX GRIFFIN*, 1674. *Cross Bath.*

John Revet Brazier to King *CHARLES II.* 1674. *King's Bath.* See *Cent. I. N. viii.*

Sir William Whitmore Baronet, and *Sir Thomas Whitmore* Knight of the Bath, 1679. *Cross Bath.*

B. Carew, without Date, *King's Bath.*

Sir Thomas Delues of *Doddington* in the County of *Chester*, Knight and Baronet, 1681. *Hot Bath.*

Elizabeth Cotton of *Plymouth* in the County of *Devon*, 1683. *Queen's Bath.*

Mr. Kingston common Brewer of *Plymouth*. *Queen's Bath.*

Sir Robert Holms Knight, Governor of the Isle of Wight, 1683. Hot Bath.

Walter Gibbs Alderman of Bath, 1683. Hot Bath.

Dr. Robert Peirce of Bath, 1683. Hot Bath.

Mr. Charles Bave of Bath, 1683. Hot Bath.

Thomas Smith of Bath, 1683. Hot Bath.

Robert Mathews of Bath, 1683. Hot Bath.

Robert Chapman Alderman of Bath, 1684. Hot Bath.

Robert Long of Stanton-Drue in the County of Somerset, Esq; 1685. Hot Bath.

The Honourable Thomas Coventry of Smitfield in the County of Warwick, Esquire, 1686. Hot Bath.

Mrs. Stratton of London, 1689. King's Bath.

The Dutchess of BUCKINGHAM, 1690. Cross Bath.

Mr. Reginald Heber of the Middle Temple, a Copper Cup to drink the Waters from the lesser Pump in the King's Bath.

What Rings have been given since, I have not yet observed.

To These may be added,

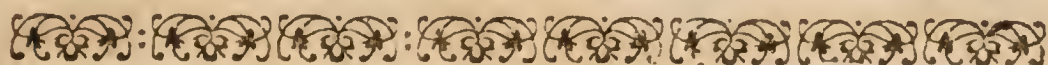
Sir Francis Stoner of Stoner in the County of Oxon, Knight, who gave the Stone Rails and Pavement at the King's Bath.

The Arch-bishop of York (I suppose Dr. Harsenet) and Hugh May Esquire, who gave the Pumps at the Cross Bath.

Hum.

Humphrey Brown Merchant of London, who gave the Pumps in the King's and Queen's Bath. And in my own Memory,

The Right Honourable ROBERT late Lord BROOKE erected the North Gallery at the Cross Bath. All *elsewhere* more fully mentioned in the Book I formerly writ concerning the Baths of Great-Britain, which in *short* Time will be in English.



SINCE the *former*, this Case was *tendred* in London, and taken by me from the Party at my Lodgings there.

Edward Washbeare of London, Sixty Two Years of Age, came to Bath in April 1668, lame on both Sides for near Three Years, came without Crutches, creeping on his Hands and Knees, and having the Benefit of Bellot's Hospital there, used the Hot and other Baths Six Weeks, drank the Waters, and pumped in the Bath, and mended so far on the Place, as in Seven Weeks Time to go upon Crutches; and before he went away hung up his Crutches, and could go *only* by the Help of a Staff, and Ten Weeks after leaving the Bath perfectly recovered. I saw him *strong*, erect, and *sound* in London 3 March 1694, at which Time he gave Testimony of Cure, but could not write.

THE 5th of July 1871
My dear Mr. [Name]
I have the honor to acknowledge
the receipt of your letter of the 2nd inst.

and in reply to inform you that
the same has been forwarded to the
proper authorities for their consideration.
I am, Sir, very respectfully,
Your obedient servant,
[Signature]

Yours faithfully,
[Signature]

Enclosed find a copy of the
report of the Committee on the
subject of the proposed
amendment to the
constitution of the
Association.

I am, Sir, very respectfully,
Your obedient servant,
[Signature]
[Name]
[Address]
[City]
[State]
[Country]

I am, Sir, very respectfully,
Your obedient servant,
[Signature]
[Name]
[Address]
[City]
[State]
[Country]

I am, Sir, very respectfully,
Your obedient servant,
[Signature]
[Name]
[Address]
[City]
[State]
[Country]

THERMÆ REDIVIVÆ:

THE

C I T Y

OF

B A T H

DESCRIBED:

WITH SOME

OBSERVATIONS on those
Sovereign Waters, both as to the *Bath-*
ing in, and *Drinking* of, them; Now so
much in Use.

By HENRY CHAPMAN, *Gent.*



LONDON:

Printed ANNO 1673 ; And Re-printed
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NEW YORK

CHAS. H. HARRIS

111 N. 3RD ST.

NEW YORK

1880

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1880

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1880

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CHAS. H. HARRIS



To the Most

August and Serene PRINCE

CHARLES II.

OF

*Great Britain, France and
Ireland, KING, &c.*

Dread and Royal SIR and SOVEREIGN,

Thath been all along (I praise my
G O D) my Inclination, as well as
I my Duty, to serve my PRINCE
and Country. The Wars in Your
ever Renowned Father's Time,
wherein I had the Honour, as well as the Misfor-
tune (as carrying with it the Sacrifice of a com-
petent Estate) to be concerned, shall testify for the
one, as this small Tract for the other. As I am a
Native of this Place, so also for the better Part of
Twenty Years, I was not a Stranger to many
Near and Remote Regions, but never could I

meet with, or hear of any such Waters as this Your City yields, in Reference to the Perpetual Constancy of their Quantity and Quality ; on which Reason, I have an Ambition and Desire to publish this to the World, What continual and inexhaustible Treasures, are stored up here in the Bowels of the Earth, scarce ever made known (at least made use of) till these very late Years, the Publication whereof, will, Sans-peradventure, advance Your Majesty's Kingdoms Interest, as conducing so much, to the Longevity and Health of the Natives ; rendring them more Numerous and Hardy (our Air will make them Valiant) And this being granted, as being an indisputable Maxim, the Consequence is, *Cum multis Manibus grande levatur Opus.*

May the good G O D, keep Your Majesty Here (long after our Age) in the Highest Degree of Honour, and Health ; and when You change, give You an Incorruptible for a Corruptible Crown : Which hath, is, and shall be the daily and incessant Prayes, of,

Your M A J E S T Y's

Most Humble, Loyal, and Obedient

Bath, 16 November 1673.

Subject and Servant,

Hen. Chapman.

To




To the Ever-Renowned

N A T I O N S

O F, and I N,

Great Britain and Ireland.

 Am not ignorant, that there are many
(and that Learned too) Treatises
abroad, concerning something I am
now in Hand with. Dr. Jordan is
extant, and so is an Appendix to it,
discoursing profoundly, from what Minerals these
Waters may proceed, with the Nature of Bitumen,
Sulphur and the like; Yet all this while, there wants
a plain, and cheap (not Scholastick) Divulgation
to the World, of the present Use of these Waters,
both as to the Bathing and Drinking of them; the
latter of which, having not been much in Use, till
within this Two or Three Years, is not (I conceive)
sufficiently made known to the World: Wherefore
that these Sovereign Waters, which are so much
approved by so many that have made Use of them,
as having wrought so many, and so admirable Cures;
may

may lie no longer in Obscurity (in Default of an abler Pen) I have, in this small Treatise, adventured it my self : In which the Reader cannot (considerato Authore) reasonably expect, any other than plain ordinary English ; the whole Aim and Scope being to Report them to the World, and (because of their singular Virtue) to encourage the Use of them.

Bath, Nov. 1673.

H. C.

Regi Gregi Victoria Copia.



A D E.



A

DESCRIPTION

OF THE

CITY *of* BATH.



THE City of *Bath* is scited in the (near) *North-East* Part of *Somersetshire*, environ'd (almost) all round with pleasant and fruitful Hills, full of excellent Springs of Waters, insomuch, as 'tis observed, that on many of their Summits, there are rare Crystal Waters gushing out ; especially in one Village adjoyning to the *Southwards* of it, there are near Fifty (if not more) Habitations, where scarce one House makes use of that Water that serv'd another, each one enjoying a particular to its self.

The Valley in which it stands, in any Place, extends (hardly) it self to half a Mile in Breadth ; in most Places less ; it is very pleasant and fruitful, and therein are hardly ever seen any Pools, Loughs, or Miry Places ; for as soon as any Inundation is over, the Waters totally drein away

away with it, which doubtless contributes much to the Salubrity of the Air. From two of these Hills, the City, by Pipes of Lead, is not only plentifully served into the common Conduits, but also not few of the private Houses are supplied with it within their own Doors; such a Convenience, and at such easy Rates, that few Places enjoy the like; and this being carried through most Streets, Lanes, and By-Ways, is not only for Within-door Occasions, but in case of Fire, is very ready to be made Use of.

The Streets are most of the narrowest Size, especially that near the Center called *Cheap-Street*, the greatest Eye-sore of its Beauty and Cumber to its Accommodation: It is Wall'd all round, with a Time-defying-Stone: The Buildings (by strong Supposition) mounted much higher than in former Ages; for walking round the Walls, it is perceivable, the City stands on a Batch (as we call it) in a Bottom, from Fifteen to Twenty Foot higher than the Surface without: Neither is it without Suburbs, the Fourth part being supposed to be so; and all together, computed by some that pretend to have calculated its Dimensions, takes not up much more than Fifty Acres; in such a narrow Compass is this antient, famous, little, pretty City contained; which being in such a Bottom, had such a Variety of Prospects and Landskips, that few Places parallel it; whereas, Places scited on Levels, seldom please the Eye far, deprived by the Interposition of the next Pale, Wall, or Hedge; whereas, this, raising it self higher than the adjoining Gardens and Meadows, hath full and free Passage; nor do the Hills so streighten the Prospect, but that the Eye may even surfeit it self with Variety of Objects (in some Places) for
at

at least three Miles, at once beholding the *Meander Avon* semi-circling the City ; then the low Meadows, in several small and great Partitions ; the Pasture-Grounds above them ; then the Corn-Fields ; so gradually ye come up to the Downs, on which, particularly, *Lansdown*, is an excellent Course of above two Miles, at the End whereof may be seen the City of *Bristol*, with the Counties of *Somerset*, *Wilts*, *Glocester*, *Worcester*, *Hereford*, and *Monmouth* : But this has made me endanger the out-running my intended Discourse, seldom farther the little City or its Prospect : But this Digression (I suppose) may not be much out of Order, when the Gallantry and Youth of the Nation, may be made acquainted, what Recreation the Vicinity of the Place affords, especially when it is accompanied with Hunting, Setting, &c.

The Wall is in Compass not a full *Engliss* Mile, and were the City not in such a Bottom, and so over-topped by Neighbouring Hills, by the Opinion of Coll. B. (once Governor thereof) and some others that may understand Fortifications, might be made Tenable ; for indeed the whole, is but one intire Rampart, a Coffin fill'd with Earth, on which the Buildings are ; then the Springs so near the Superfices, that no Approaches can be made but with great Difficulty. There are large Discourses already extant of several Statues, Figures, as *Gorgons*, *Serpents*, &c. in it, in which I shall not meddle, but leave every Man to his View and Belief ; but certainly this, It is a noble antient Wall, therein appearing many Antiquities, as also four Gates, (having their several Denominations from the four Cardinal Winds) which every Night are ordered to be locked up,
and

and a Watch Itinerant, sworn not to enter any House till Four in the Morning; which, how duly observed, some of them who have been caught tardy, and put into Wooden Bastile for their Pains, can satisfy you.

The Government is by a Mayor, Aldermen, and twenty Counsellors or Citizens. The Mayor and Aldermen (on Solemn Days) are in Scarlet, the Number (by Charter) may not exceed Eleven, nor under Five; to these is added a Recorder, who there, with the Mayor, is Justice of the Peace, and *Quorum*, having the Precedence of the two other Justices; also a Town Clerk, who every Leet-Day (twice in the Year) calls the Court, and it is kept in his Name, although Mayor, Aldermen, &c. present.

And here, I conceive it will not be improper, nor sally from the purpose, to observe the Care here taken for the Poor, of which Quality (I suppose) there are fewer than in any Place (for its Bigness) in the Kingdom; the yearly Rate for the three Parishes, being under 30 *l. per Annum*, which, to some Strangers, hath, (not being acquainted with the Custom and Method here taken) seemed wonderful; most People conjecturing the City to be poor, as indeed it cannot vaunt of many notoriously rich; yet Providence, with the beneficent Munificence of some of our *English* Monarchs, hath sufficiently provided for it thereby, they owing as little to their Backs and Bellies, as any Place I know of; yet, no stupid Gormandizers neither; for such Care is taken, that the wealthier Sort eat their own Morfels, free from such importunate Clamours and Out-Cries, as are too frequently seen in other Places, that have a higher Celebration for Riches,
this

this principally arising (without doubt) from Magistratical Care at every Quarter-Sale Day, wherein the poorer Sort are not only kindly used (beyond Comparison) but are also so tyed up, that they cannot squander away their good Bargains; but are reserved, in case of Necessity, to their needy Families.

It is supplied and adorned for the Service of G O D with Three Churches, dedicated to St. *James*, St. *Michael*, and St. *Peter and Paul*, the latter, justly challenging to its self the Pre-eminence, for Lightfomeness, Stateliness and Elegance of Structure, of all the Parochial Churches in the Kingdom; the Tower whereof, is One hundred and sixty-two Foot high; in the upper Loft whereof, is a noble Taunting and Musical Ring of Bells, whose loud Peals have been distinctly heard Five, Six, nay, sometimes Seven Miles distant. The Tenor is called *Hopton*; mostly the Gift of that Honourable Family; what wanted in their Bounty, was supplied by the City: To this Tower are Four several Stair-Cases, at each distinct Corner one. This stately Pile was begun in *H E N R Y* the Seventh's Time, by one *Oliver King*, the then Bishop of the Diocess, but never (by the Iniquity of the Times, partly arising by the several Changes) could it arise to any Perfection, till about the Years 1606. G O D raised up Bishop *Montague*, Mr. *Thomas, Bellot*, and other pious and generous Benefactors, by whose great Bounty and good Example, it now enjoys its present Splendor and Glory. In the Body whereof one Thing is most remarkable, That although it be of a vast Dimension, taking its Height, Breadth, and Length; and lying uncovered for above One hundred Years, the Window

dow so large, the Walls so thin, that, I presume, many Mansion-Houses equal it, yet, this noble Pile, notwithstanding it hath no sloaping Buttresses on the Outside to support and strengthen it, which the great Churches usually have, shews no Flaw, Crack, nor Settling, but stands firm and intire, evidencing thereby, not only the profound Skill of the Architect, but the Goodness of the Stone, whose Quality is, when taken up Green out of the Quarry, of such a Softness, that a Penknife (comparatively) may work it, without turning its Edge; but when exposed to any Building in the open Air, nothing is more lasting, nothing more permanent, for neither Age nor Time can deface it; Witness the whole Pile, which, notwithstanding it hath stood near two Centuries, yet, to this Day, remains as firm and beautiful as at first: Near the midst whereof, under an Arch to the *Northward*, lyes Interred the Noble and Charitable Benefactor, Bishop *Montague*, on whom his Executors (his Brothers) Men of great Honour and Places, rear'd a stately Monument, answerable to the Dignity of that Honourable and Religious Prelate. Over-against this noble Monument, the City, in Testimony of the Respects they owed to the then Rector Mr. *John Pelling*, erected another to him. This Reverend Divine, notwithstanding he had a numerous Issue, yet, was so indefatigably Zealous in forwarding the Reparation of this Fabrick, that, when, at any time (and that was not seldom in that generous and benefactory Age) any Persons of Honour offered to him, as to his private, refused it with his *Non Mibi, sed Ecclesiæ*, which occasioned that Motto over his Tomb; which Self-denial (its possible) the good GOD hath secondarily paid into his own Bosom,
by

by a Blessing on his Posterity, who, some of them especially, notwithstanding the few Mites they had to begin the World, have now the Value of Talents in their Possession ; but this I take Notice of, only for the Reader's Satisfaction, not for other Ministers Imitation.

In the *South-East* Isle, is a pretty, somewhat stately, and, doubtless, conceited Monument, all of Free-Stone, having originally no Inscription, as to Time, Person, or Quality, therefore vulgarly called the Speechless Monument ; but now not so, for although the Tenant was (possibly) not willing to have any, yet, the Will of the Dead, as to that Particular, is sufficiently broken ; for on the Ground are many Stones, curiously and artificially joyned together ; these make the Resemblance of a copped Chest, which is in Length, Breadth, and Height, sufficient to receive an ordinary Corps ; but it seems it was not the Receptacle, if you believe the scribbled Inscription.

*Fancy may think one hid within this Tomb,
But Reason says, His Grave was Mother's Womb.*

A N O T H E R.

*Nameless not Fameless, here one lies,
Believe not me, believe thine Eyes.*

That was answered thus,

*Nameless, then Fameless ; for how can Fame,
Attend that Man that wants a known-by Name ?*

F f

Anonymus

*Anonymus here, might very well share Fame,
With Alexander, bating but his Name.*

*Harry Spicer like to Cæsar and 'i'had'nt spread,
But Cæsar's living, and Harry Spicer's dead.*

*Then Name makes Fame, and nothing else; for Fame
'S no more in Sense, than a Recorded Name.*

But to prevent all future Defacings by such Scribling and Scratching, one (it seems) had been so far acquainted with the Name and Quality of the Three interred, that for these many Years, he hath silenced such Enormities by this Divulgation to the World.

If any Man my Name and Life enquire,

Lichfield my Name, my Life was Musick's Hire.

Near over against this Monument, is a neat little Chappel, under an Arch between the Isle and the Chancel; where formerly sate Persons of the greater Quality, some of which, I suppose, though much of it is not so, for Curiosity in Stone-Work, is hardly to be matched in England, especially, if H E N R Y the Seventh his Chapel at *Westminster* be the best, then many are assured, the best of that, must veil Bonnet to some of this: It is, on good Ground, believed of *William Bird's* Foundation, who was the last Prior here, and left his Fancy here in this Chappel, in the Abbey-House, and in many other Places in the City, being a Bird in a *W*.

But since I am on Fancies, I must not leave this Church without a Recital of some others in the Windows, numbred in all Fifty Two; most given by Strangers, Benefactors, of which,
and

and all other Charitable Donations, there is a Vellum-Record on purpose kept in the Library. The great Window in the Chancel (where there is a greater, in all Dimensions, I am yet to seek) was totally the Gift of that Worthy (fore-named) Gentleman Mr. *Thomas Bellot*, fancying his Name, being Party-Coloured Quarries of Glafs laid Bellot wise, one over and cross the other. There are three others (though of smaller Value) one given by Mr. *Malet of Enmore*, with his Coat of Arms and Motto, *Malet Meliora*. Another by Mr. *Biss of Spargrove*, with his Coat and Motto, *Bis fecit sis fœlix Bis*. The Third, a Citizen of *London*, who although (peradventure) he was not so accoutred from his Ancestors, yet, his generous Liberality was equal in the Charge, to the others (unless the Coat made a Difference) for a Window, he gave of the same Magnitude; with this Fancy of *William Plumly*, Here I was, This I did.

I must not omit speaking somewhat of the Revenue of this Church, which indeed is but small; and that which is, hath been the Gifts of Protestant Benefactors; among whom, Dame *Elizabeth Booth*, the Ancestress of that noble and fully accomplished Gentleman the Lord *De la Mere*, exceeded all the Sons and Daughters of our *Israel*, by whose pious Bounty, with some Additions the City made, there is purchased in Land, to the Yearly Value of near Twenty Pounds *per Annum*: This seems but a small Maintenance for so great a Building; yet, with this, and with what else doth arise by breaking Ground for Burial-Places, and for Monuments, it is as well kept in Repair, as any Church I know of.

But, before I leave this Church, I shall leave with you these few Observations ; First, That not any one (that I know of) not of the Religion professed and established, gave one Penny towards its Reparation ; Next, for the Honour of our Fathers, they were the Repairers ; and that, in the last place, we, their Survivors, may not be branded of having so much Faith, that we have lost all good Works, continue the Reparation, and that not niggardly neither ; of which those famous Battlements and Pinacles, almost round, give sufficient and pregnant Evidence.

And now having done your Devotions, it is time I lead you to the King's Bath, where, as soon as you come down the great Stairs, you may behold the Stone-Pavement and Battlements quite round it, the Bounty of *Sr. Francis Stoner of Stoner* ; and for that, I have had some Reflections on Protestant Benefactors on the Church, to give each Persuasion its Due, this Gentleman was a *Romanist* ; may not this, therefore, argue for them, That although they may be no Friends to the Church, yet they may be to the State ? And now behold one of the greatest Miracles of Nature, the Universe (by Travellers general Report) not affording the like ; whose Waters, granted, by all Hands, to be as old as the Creation, keeping constantly one Quantity and Quality, in the greatest Floods or Inundation any the more, experimentally made true, by this unquestionable Evidence, the Waters filling it up to the usual Height ; which when the Sluices are carefully and exactly stopped, whether Summer or Winter, Drought or Flood, makes not one Minute's Difference : So that Dame *Luna*, that Pudding Piss-Kitchen-Planet, with her Ebbings and Flowings,

ings, her Nepes and Spring-Tides, hath no Influence at all here ; And no more than Reason, for these Waters all along, have been and are * *Aquæ Solis*, so *Sol* is solely predominant here, and Lord Paramount, whereby, we are assured, they partake of no other accidental Increase, by any Spring or Soaking to contaminate, defile or dis-virt it, which the cold Waters of *Tunbridge*, *Epsom*, *Barnet*, &c. cannot appropriate to themselves, if general Report be true, they increasing and decreasing, according to Accident and Season : But of this no more till I come to hint, and but to hint, of them in another place.

Now the Quantity of these Waters arising in the King's Bath (there are none in the Queen's, altho' they are contiguous) may, as is supposed, very well drive an Over-Shot Mill, and the Quality is as constant as the Quantity, the Springs at their Ebullitions, as Hot in *December* as in *June* ; and therefore may, with some more Care for Prevention of taking Cold, be with much Efficacy used in all Seasons of the Year; which is very fit should be taken Notice of, to remove a Vulgar Error, That these Waters are never useful nor seasonable but in the Summer.

Among the many Springs in the King's Bath, there is a principal One called the Hot Spring, which is received by its self, without Communication, into a Lead Cistern, and that so close, that it is impossible any Drop of the other Waters can intermingle, over this Spring and Cistern, is, by the Order and Direction of an Honourable and Famous Physician, a Pump erecting, so that the Water from its single Effluence, shall, by Three

* Antiently the City's Name.

several Conveyances, be distributed abroad in wonderful Quantities ; insomuch that although the three Pumps should be in perpetual Agitation, yet, this noble and exuberant Spring, will remain inexhaustible ; the Virtues whereof *Fame*, warranted by *Experience*, hath justly trumpeted forth to the World, insomuch, that they are not only made use of in the Bath, the several Places of the City and Neighbourhood, but also in Bottles and Runlets, at *Bristol, Gloucester, Worcester*, nay, *London it self*. Among many its Virtues, I shall give you an Account of but few, Take your Proportion in the Morning, whether Two, Three, or more Quarts, as may be prescribed you, for Four, Five, or Six Hours, after you have drank them, you have no Thirst ; whereas formerly, when they were not taken inwardly, the Bathers were so greatly afflicted with it, that, many times, weak Heads have been near an Intoxication, in only endeavouring by taking in other potable Liquor (moderately) to quench it ; and all the Times these Sovereign Waters are in your Body, although they may give you several Stools, yet, it is without any Rumbling in your Body, or Laceration of your Guts, having a gentle and painless Operation, both by Urine and Siege ; the Concomitant whereof, is an excellent Stomach, much better'd by Walking and Stirring your Body after the drinking them ; and still as your Body empties, you may continue drinking more, the Waters being so innocent, that it is seldom or never heard, any Complaint that they have injured any one : And now, as I said before, they are never out of Season ; for that stately new erected Cross in the King's Bath, is a Defence and Shelter, as well

well from Winter's Blasts as Summer's Sun, and there are many convenient Rooms for Drinking of, and Bathing in them, which may invite those that have Occasion to make use of them at any Season ; especially, since I shall give them this Assurance, That although there may be to Winter-Bathers more Expence in Fuel ; yet, to recompence that, their Lodgings will be cheaper, and the Inhabitants are observed to be as active in their Attendance, and as ready to take your Money in hoary *December*, as in fragrant *June*. This being granted, I have often wondered so much People have neglected a sudden Repair hither ; but to the Loss of many of their Lives, Limbs, or both, have delayed so long, and tampered so much, by taking undue Courses in other Places, that, many times, when they come hither, they are so far past all Hopes, that nothing but a Miracle can cure them, whereas seldom or never, any part hence (that make early Application) without some Comfort, if not perfect Cure or Recovery. I cannot play the Empirick to tell you all the Maladies, and Diseases by Potion and Lotion they are effectually good for ; only this, to my own Knowledge, they are (in some Constitutions) good against, and for avoiding the very Stone, of which there are Proofs sufficient : Among the Many, this One ; The dearest Relation of the Author of these Papers, was extreainly tormented with it for some Years ; never could she find any Ease or Comfort by any Skill or Direction of the ablest Physician, till the Great Physician was pleased to put it into her Head to make use of the Bath ; which, in Three or Four times Using, by Bathing and Drinking divers Times, came from her, and that only, in

the time of her Bathing and Drinking; some whereof, as big as Olive-Stones, are yet in my Custody; and from that Time to her Dying-Day, which was some Years, was never troubled with it afterwards. For other ordinary Diseases, as *Palsy*, *Dropsey*, *Sciatica*, *Rickets*, and the like, the numberless Number of Crutches that have from Time to Time been left behind, is a sufficient Testimony; some whereof, yet hung up, remain as Trophies of G O D's Mercies in their several Cures.

And now in this place, according to my Promise and Purpose, I shall speak somewhat of the cold Waters of *Tunbridge*, *Epsom*, &c. so much celebrated and drank of, in and about *London*, wherein, because I may be thought partial, I shall speak the less; in which, let me desire an Observation, Whether or no, since the drinking those Waters have been so much in Use, the Gripping of the Guts, a not only painful, torturing, but mortal Malady, hath not been more frequent now than in former Times? It is easily found to be so by Examination of the Weekly Bills, which plainly evidences, that of late, more have been cast over the Perch, by this doleful Disease in one Year, than (giving Allowance also for the Growth of the City too proportionably) in former Ages in Seven; and those that will not appropriate that single Disease, besides some others that may be attributed to those Waters, are in their Understanding (I humbly conceive) blind, or wilfully obstinate. Indeed how can it be otherways but those cold and crude Springs, with their nauseous Soaking, (so averse to our *English*, and all *Northern* Constitutions) lying so long in the Stomach, but must oppress, chill it, and destroy the Appetite, especially
since

since it is granted there is many Times a Mixture of Rain Waters, soaking through the several Crannies of the Earth into them, adding an Increase by Urine and Ordure, Humane and Belluine, plentifully shed thereabout ; so that the Physick makes the Excrement, and (*Vicissim*) the Excrement the Physick : Certainly it is so, those Springs being observed to be far more fluent in wet and cold Summers, than in the hot and dry. Then, if compounded Rain-Waters, and such Soakings, are of such Virtues, I suppose they may be had nearer Home ; but it can never win Belief with me, that the Drinking them is the sole Reason and Occasion of the great Resort thither : No, doubtless, there is something else in its Meetings ; which if so, they that go thither, on that Errand, do not amiss ; let them enjoy and solace themselves there, no hurt ; but when they are there, to drink the Waters in such a prodigious Manner and Measure, through Wantonness, Custom, or Example, can by no Man, wishing well to the Nation, be approved of. But *Si Populus vult perire, quis vetet ?* Sure this I am, that not above Two or Three Years since, some Sixteen Miles distant from this City, at a Place called *Alford*, there was such another Spring found out, as I am now discoursing of ; never was there a greater Resort to any Place (considering the small Quantity of Waters it produced) than thither ; so much Reputation it had gained, that much People had the Patience to wait their Turns (for GOD's Mercies were much seen in that it was a pitifully, barren Spring) till they could be supplied from the Well. This was then (for that Year only, for never before, nor never after, that I ever could hear
of

of, it having paid the Drinkers off sufficiently) it made use of as the *English Bethesda* ; but it was not the Angel of the L O R D that stirred those Waters, but an evil one ; found so, by the Diseases and Mortality that seized on abundance of People in a very short time after they had drank them ; insomuch, that ever since, there is *Lord have Mercy* written on the Door of him that made Merchandize of them.

Hinc subitæ Mortes atque intestata senectus.

And now I have done with the cold Waters, when I have given you a Sight of a Valedictory Request which a waggishly witty Gentleman, who, in the Time of the late Wars, was (with others, rinsing his Hypochondriacks) bestowed on *Epsom*.

*May all Carouses on this Green,
Be Health, and more, to the King and Queen ;
But the Squirt and Scent in Field and City,
An Oblation to the close Committee.*

To conclude what I have said of the King and Queen's Baths, I would be understood as to their Virtues, *conjunctim aut divisim*, to be said of all. Only this, The Springs of the Cross-Bath are not so hot as the King's, nor so fluent ; neither those in the Hot-Bath, the Distinction being given it, in reference (only) that it is hotter than the adjoining Cross-Baths : All which Baths are so surrounded with such noble Buildings for Reception, that they appear (in respect of other Places so remote from the Metropolis) rather petty Palaces, then common Lodgings, summ'd up in a Pair of Heroicks by the Author hereof, near an Age since, and may now with Candour seem no
Vain-

Vainglory, or Impertinence, to be inserted here, since they no ways Hyperbolize the Convenience,, Gallantry, nor Virtues of the Baths nor City and being both made, on Accident, not Design, vindicates the Honour of our *English* Tongue, having fewer Letters in our own than the *Latin* ; and yet, as full significant and expressive as that.

*Balnea, Lympha, Forum, sic, Templum, Mænia, Rivus,
Talia tam parva, nusquam sunt urbe reperta.*

*Baths, Church, Rock Water, River, Hall, Wall-round,
Such, in so little a City, no where found.*

*Go, wash in Jordan seven times, and thy Flesh
shall come again to thee, and thou shalt be
clean.*


*Are not Abana and Pharphar, Rivers of Damascus
better then all the Waters of Israel?*

*Then went he down, and dipped himself seven times
in Jordan, and his Flesh came again, like unto
the Flesh of a little Child, and he was clean.*
II. Kings, I Chap.





THE
APPENDIX.

 I T H O U T which a Pamphlet, now-a-days, finds as small Acceptance as a Comedy did formerly, at the Fortune Play-House, without a Jig of *Andrew Kein's* into the Bargain. Therefore to Temporize (I pray take that Word in the best Sense) I here present you with a Legendary one, and for Caution, would not have you tye your Faith too much on it, although (I assure you) it is *Parti-par-pale*, as our *West-Country* Housewives order their Puddings, with Vatt and Lean; this my Country-Man (to my Knowledge) dyed in *East-India*, on whom *Padree Hatch* bestowed this Epitaph,

*Here lyes TOM CORIAT, Odcombe's Pride,
Who came to Surat, and here he dy'd.*

This

This famous Person was not only a Well-Wisher to the Mathematicks, but also a great *Aristotelian* Peripatetick and Cotemporary with the great *Gamaliel* Signior *Crusado* of *Chu le Grande*, in or before his Travels : Having read much of* *Jeoffrey Monmouth*, especially in that which had reference to what was concerned in the great Table hung up against the Wall in the King's Bath, dedicating it to old *Jeoffrey's Ghost*, he bolts out in this Poetical Rapture—

*Lud Hudibrafs a Meazel Voule, did zend his Zun
a graezing,
Who vortuend hither vor to cum, and geed his
Pigs sum Peazun ;
Poor Bladud he was Manger grown, his Dad,
which zum call Vather,
Zet Bladud Pig, and Pig Bladud, and zo they
ved together.
Then Bladud did the Pigs inveet, who, grunting,
ran away,
And vound whot Waters presently, which made him
fresh and gay.
Bladud was not so grote a Vool, but zeeing what
Pig nid doe,
He Beath'd and Wash'd, and Rins'd and Beath'd,
from Noddle down to Toe.
Bladud was now (Gramercy Pig !) a delicate vine
Boy,
So whome he trudges to his Dad, to be his only
Foy ;*

* The single Author that *Bladud* found out these Waters and Bath, the City.

*And then he built this gawdy Town, and sheer'd his
Beard Spade-ways,*

*Which Voke accounted then a Grace, though not so
now-a-Days.*

*Thwo thousand and vive hundred Years, and Thirty-
vive to That,*

*Zince Bladud's Zwine did looze their Greaze,
which we Moderns cal Vat.*

*About that Time, it was alzo, that Ahob's Zuns
were hanged,*

*A Jezabel, their Mam, (curz'd Deel !) caus'd Na-
both be stone-banged.*

*Chee cud zay more, but cham aveard, Voke will
account this Vable,*

*O Invidles ! if yee woon not me, yet chee pray believe
the Table.*

Miscentur Seria Nugis.









